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Performance Audit
# of the
Department of Building Inspection

Final Report

Prepared for the Office of the Controller
of the
City and County of San Francisco

KPMG

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EXECUTIVE SUMMARY

I. Results in Brief

The Department of Building Inspection (DBI) is in business to review plans, perform inspections, and issue permits. DBI exhibits a strong customer service ethic but requires much improvement in its key processes of permit issuance and inspection.

1 Permit Accuracy and Efficiency. The DBI should eliminate minor quality control gaps in the permit issuance process that raise the risk of substandard construction.

- A review of 20 applications revealed that 35% were returned after quality checks identified missing reviews, approval signatures, or outstanding code complaints.
- Permit fee calculations were generally accurate as a review of 25 fee receipts found over/short errors representing only 0.1% of the total collected.
- Inadequate documentation related to plan changes in the One Stop process which may affect code compliance, was noted, but no estimate of the frequency of this condition could be determined from available documentation.
- Employee survey results indicated that 50% of staff felt training was not adequate.

2 Permit Timeliness. The DBI should address process and technology issues that delay permit issuance.

- Twenty percent of a 1600 “behind–the–counter” plan sample required 30 minutes or less for review, indicating that more plans can be reviewed and approved “over-the-counter”.
- Current division of plan review responsibilities between the inspector and engineer job positions contribute to delays in permit issuance.
- Lack of reliable performance measure data make management identification of process bottlenecks difficult.
- Recent improvements in supporting information technology (Motorola to Oracle) have reduced system-related work slow-downs from almost daily to once weekly occurrences, however additional improvement opportunities exist.

3 Inspection Productivity. Insufficient use of technology and quality controls hamper inspector productivity and responsiveness.

- The inspection records process relies on manual note-taking, requiring multiple transfers of data by inspectors and clerks.
- The current data collection protocol for tracking inspection performance lacks sufficient checks to ensure accuracy.
- Quality control procedures for inspections do not favorably compare to the best jurisdictions.

- DBI has the least aggressive response time targets for inspections of the 9 jurisdictions surveyed.
- Limited improvements in the use of technology have reduced clerical paper processing workloads, saving approximately 8,800 hours yearly and allowing more customer contact, however additional improvement opportunities exist.

4. Customer Service. Although interviews indicate that management and staff emphasize customer service as a priority, front-line contact with DBI customers is inefficient and inconvenient.
   - Review found that the three inspection divisions have inconsistent hours and procedures for customers to schedule inspections.
   - Analysis of Customer Service staff activity indicated that 75-85% of calls relate to the same set of questions and could be addressed with an initial automated response.
   - Responses to customer questions on code interpretation are sometimes inconsistent, and take an estimated 6,600 hours of plan review staff time annually, to the detriment of fulfilling normal job responsibilities.

Key Recommendations.

1. Add controls to ensure permit applications are thoroughly and accurately reviewed. ***Result***: Increased assurance of building safety.
2. Research One Stop process complaints and train One Stop Permit division staff to remedy. ***Result***: More efficient permit issuance process.
3. Assess potential for greater engineering staff involvement in the plan check process during initial counter screening. ***Result***: More plans approved while the customer waits; improved customer service.
4. Consider replacing inspector positions involved in the plan review process with junior engineering staff. ***Result***: Fewer re-reviews of plans; more efficient plan review process
5. Acquire existing paperless technology to streamline the inspection records process. ***Result***: Less manual paper work; greater inspector productivity.
6. Revise data collection protocol to improve the reliability of plan review and inspection performance measures. ***Result***: Increased ability to identify and remedy productivity and responsiveness issues
7. Improve the quality audit system for inspections and review responsiveness targets. ***Result***: Decreased risk of non-compliant construction and improved customer service.
8. Standardize customer service hours for scheduling Building, Plumbing and Electrical inspections. ***Result***: Improved customer service.
9. Install an IVR system to handle, track data on incoming phone calls. ***Result***: Reduced customer wait times; more efficient staff usage.
10. Refer all code related questions to Technical Services staff . ***Result***: Improved customer service; greater plan review productivity

II. Background

In November 1994, the voters of the City and County of San Francisco passed Proposition G removing the Bureau of Building Inspection from the Department of Public Works and establishing it as a separate City department. The Department of Building Inspection (DBI) is responsible for a wide variety of services, including the inspection of buildings and structures for compliance with related codes and regulations; reviewing plans for conformance with related codes and regulations; approving and issuing permits, updating microfilm records, and processing Residential Records reports.

The services provided by the Department are funded entirely from fee revenues relating to plan checking, permitting and licensing. To support these important services, the Department also provides administrative support and general management activities such as financial planning, budgeting, purchasing, accounting, human resources management, and customer services. Both these services and activities combine to create a complex and sophisticated organization.

The CCSF DBI faces a unique set of challenges in the execution of its mission. Geographical challenges in San Francisco include an expansive waterfront, wide differences in elevation, and significant seismographic concerns. These natural factors, combined with those that are man-made such as the countless types of residential and commercial construction and the rebounding high rise construction industry, would seem to be enough of a challenge. In addition to both these conditions, the Department must satisfy a very active and vocal political electorate, making the efficiency and effectiveness of this public entity a paramount public concern.

III. DBI Should Better Control Permit Issuance to Ensure Accuracy and Efficiency.

The DBI should eliminate minor quality gaps in the permit issuance process that raise the risk of substandard construction and improve training. The potential for incomplete reviews or errors in the permit process can be better controlled, reducing the risk of substandard building construction.

a. ***Condition***: We reviewed a sample of 20 internal checklists used to assess the completeness of permit applications before issuance. We found that 20% had not undergone necessary reviews by the Mechanical Plan Check section or were missing approval signatures. An additional 15% of applications involved properties with unresolved code complaints requiring Housing Inspection investigation. ***Cause***: Routing and procedural oversights persist in the plan review process. ***Effect***: Oversights increase risk of non-compliant construction and the need to return plans for missed approvals, signatures or investigations increases overall plan review time.

b. ***Condition***: The current One Stop permit review process does not ensure the re-review of all plan changes which may effect code compliance. However, no estimate of the frequency of this condition could be determined from available documentation. ***Cause***: The current process does not route plans with changes back to non-DBI City departments for re-review. ***Effect***: This condition contributes to an increased risk of approval of non-compliant construction.

c. ***Condition:*** Our interviews with Plan Check staff indicated that several believe One Stop staff often do not collect adequate initial documentation from applicants or accurately transfer plan comments to final approved plan sets returned to the applicant. However, this perception could not be substantiated by a review of available documentation. ***Cause:*** The One Stop permit coordinator positions may lack sufficient plan evaluation skills and training to ensure the completeness of each task. ***Effect:*** This condition could contribute to re-work by plan review professionals and raise the risk of inadvertent approval of substandard construction.

d. ***Condition:*** We identified 1 instance of inadequate fee assessment and 1 instance of excessive fee assessment for minor amounts in a sample of 25 plumbing, electrical, building and plan check fee assessment receipts. Each of these errors represented a negligible amount (1/10%) of the total fees in the receipt sample. ***Cause:*** Assessment of fees by Central Permit Bureau staff are generally accurate. ***Effect***: If the error rate in the sample is applied to the $30,239,935 in fees collected in FY 1998-1999, it would represent $37,116 in lost revenues annually.

e. ***Condition:*** Our July 1999 survey of management and select staff indicated that 50% believe training received was not adequate or valuable. ***Cause:*** Specifically, those who commented felt that state mandated courses did not provide adequate knowledge to perform most job duties. ***Effect:*** Inadequate training increases the risk that permits are issued based on incomplete (or inefficient) reviews of building plans.

IV. **DBI Should Issue Permits Faster.** The DBI should address process issues that delay plan review and permit issuance. Performance data gathered shows inconsistencies and is of limited use to management in identifying process bottlenecks.

a. ***Condition:*** A significant number of plans taken in for 'behind the counter' reviews may be suitable candidates for 'over the counter' review. Our review found up to 20% of plan reviews by DBI reviewers took 30 minutes or less, and 3% of such reviews took 15 minutes or less. ***Cause:*** Current use of plan review professional staff at service counters and screening procedures may not maximize the number of plans able to be reviewed over the counter. ***Effect:***

The practice of taking more plans for 'behind-the-counter' reviews increases plan backlogs and lengthens the overall permit issuance process.

b. ***Condition:*** The Department employs inspector positions in addition to engineers to review certain elements of construction plans. This plan review role for inspector positions enjoys strong union backing. Interviews suggest that inspectors are sometimes unable to review those plan elements assigned to them to the satisfaction of engineers who re-review these before issuing final plan approvals. However, the extent of this condition could not be estimated by a review of the associated documentation. ***Cause:*** The use of inspectors to perform an initial first review of plans followed by secondary reviews of engineers does not appear to be efficient or cost effective. ***Effect:*** This condition contributes to increased plan review and therefore permit issuance times.

c. ***Condition:*** While the Department's *system* for measuring performance of plan review compares well with other jurisdictions, we found inconsistent data collection and calculation practices in our reviews of both 1999 and 2000 data. ***Cause:*** Operations staff miss or fail to enter plan routing dates consistently at various stages of the plan review process. ***Effect:*** Unreliable performance measurement data limit management's ability to pinpoint and remedy process bottlenecks.

d. ***Condition:*** Use of the Oracle 2000 and legacy Oracle systems has replaced the segmented usage of different information systems for different divisions throughout the Department. ***Cause:*** A new Oracle 2000 system has been introduced to replace the legacy Motorola system, and is scheduled to also replace legacy Oracle applications. ***Effect:*** Inefficiencies associated with the use of different systems and lost work time due to system 'freezes' or 'slow downs' have been reduced, however more recent fieldwork reveals opportunities for improvement remain.

V. DBI Should Increase Inspection Productivity and Responsiveness.

Insufficient use of technology and unreliable data gathering practices hamper inspector productivity and responsiveness. The DBI emphasizes customer responsiveness but had the lower inspection response time targets than other jurisdictions surveyed. While we did not attempt to assess the accuracy of inspections, we found that DBI's quality control procedures for inspections did not compare to the best jurisdictions.

a. ***Condition***: During 'ride-alongs' with DBI inspectors, we observed three separate transfers of information by hand from paper site card to paper job card to paper report and finally to the Oracle system. ***Cause***: The DBI's inspection records process is paper driven, manually intensive and does not employ available technology. ***Effect***: Time spent on multiple manual transfers of data adversely effects inspector productivity.

b. ***Condition:*** Our September 2000 review confirmed our 1999 observations. Data is subject to reporting error and involves time consuming calculation. ***Cause:*** No consistent definition of what constitutes a single inspection exists, data gathering relies on self-reporting with no automated verification, and calculation of final performance measure figures relies on multiple manual transfers of data. ***Effect:*** Areas of sub-par inspection performance may remain hidden and actions to improve overall inspection responsiveness may be misplaced.

c. ***Condition:*** Since the DBI's 48-hour inspection response time target is less aggressive than the 24-hour target used in the other jurisdictions surveyed, performance results, indicating targets are met or exceeded, may inappropriately indicate comparable productivity ***Cause:*** A combination of limited technology to aid customer access and lack of training may contribute to the DBI's lower response time target. ***Effect:*** The current target is likely to limit the level of service to DBI customers.

d. ***Condition:*** The current system for auditing inspection quality risks subjectivity in audit results. Additionally, the DBI does not make use of such information gained by quality audits to identify technical training requirements of its employees. ***Cause:*** Unlike the best jurisdictions surveyed, the department relies on supervisors to audit the quality of inspections of inspectors reporting directly to them rather than utilizing cross-section checks. The DBI uses a request-driven system to identify training needs. ***Effect:*** Although no quality issues were identified, the current system, lacking in scheduled periodic reviews, increases the risk that lapses in inspection quality may be overlooked.

e. ***Condition***: The automation of the production of initial inspection job cards using the Oracle 2000 system has eliminated an estimated 8,800 hours, 1100 work days or four FTEs in clerical staff effort identified in our June 1999 review. ***Cause***: The introduction of the Oracle 2000 system has automated what was previously a manual task under the old Motorola system. ***Effect***: Time previously spent by Central Permit Bureau staff on the production of job cards is now available to attend to the needs of Department customers.

VI. The DBI Should Improve Customer Service Through Automation and Coordination Although management and staff emphasize customer service as a priority; inconvenient access hours, a lack of technology and a lack of internal coordination contribute to inefficient and inconvenient front-line contact with customers.

a. ***Condition:*** DBI customers must cope with different schedules and procedures to request an inspection from each of three inspection divisions –Plumbing, Electrical and Building. Each division maintains separate hours within which customers may call in to request inspections. In some divisions, inspectors must speak directly to customers to confirm inspection times; in others administrative support staff can do this. ***Cause:*** Inconsistent service hours and scheduling procedures exist. Technology such as voice mail or automated scheduling to support customer access is not in place.
Effect: These varied procedures complicate customer attempts to schedule inspections.

b. ***Condition:*** Our observations of Customer Service staff indicate that routines for responding to incoming customer phone calls are not efficient in their use of either Customer Service or professional staff time. ***Cause:*** Lack of appropriate technology and insufficient training contribute to the inefficient handling of customer calls.
   1. The Department does not use an IVR (Interactive Voice Response) system to handle incoming calls, requiring a staff person to respond to each individually. Based on our observations of Customer Service staff, approximately 80% of time of the three staff persons, or 2.4 FTE, is dedicated to incoming calls. Additionally, without an IVR system the DBI is unable to collect data, e.g. call volumes or inquiry type, to design effective strategies for handling incoming calls.
   2. No touch-tone or recorded message system exists to inform customers of the status of their plans in the plan review process, although this information is recorded electronically. Observations reveal that approximately 75-85% of incoming calls are inquiries about plan status.
   3. Calls are misdirected to line and professional staff contributing to wasted staff time and multiple transfers of customer calls. Analysis of plan review staff and CPB staff comments indicate that many calls are misdirected. One manager indicated that a third of the calls received involved queries that could be handled by Customer Service staff.

   Effect: Although no reliable data is available, Customer Service staff themselves estimate customer wait times of up to 10 minutes in peak periods, and staff complaints of interruptions from misdirected calls were frequent.

c. ***Condition:*** Procedures for handling inquiries on code interpretation leave room for conflicting advice to customers and disrupt plan review workloads.
Cause: The current assignment of responsibilities and lack of coordination contributes to this condition.
   1. Two different staff groups, the Technical Services as well as the Plan Check divisions, answer code interpretation inquiries but no

mechanism exists to ensure interpretations provided to the public are consistent. Both interview and focus group comments indicate that responses provided to customers by the two groups can conflict. However, our review found no documentation available to substantiate the frequency of this condition.

2. Our sample inquiry of 4 plan review professionals who answer general code interpretation questions indicates that an average of 0.7 hours is spent daily on this task. If this average is extended to all 33 plan reviewers on an annual basis, a total of 3 FTE hours annually is spent answering code queries and not reviewing plans.

Effect:

1. Contradictory responses to the same code question contributes to customer confusion and impatience. Plans submitted in accordance with one code interpretation may be rejected because of a conflicting interpretation of the code used by the actual plan reviewer.
2. Responding to code inquiries detracts from plan review duties. Interruptions can derail the train of thought and cause delays far beyond the actual time spent responding to the inquiry.

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Performance Audit Objectives and Scope

On May 3, 1999 KPMG LLP (KPMG) was engaged by the City Controller's office to conduct a performance audit of the CCSF DBI. The objectives and the audit scope set the context for this effort. The audit team was charged to conduct a performance audit to highlight operational or efficiency issues within the DBI. Specifically, the City and the Commission members were interested in determining the level of efficiency and effectiveness in which housing inspections are conducted and building permits are processed by the Department. Given the nature of the services to be provided, KPMG recommended and employed a two-phased approach for the conduct of this performance audit consisting of a management level risk assessment followed by a narrowly defined detailed audit

Approach and Methodology

KPMG employed a two-phased approach for the conduct of this performance audit. Phase One of the project consisted of a department-wide risk assessment. During this initial phase, KPMG sought to develop a broad understanding of the practices currently employed by the DBI. Using techniques such as focus interviews and an internal document review, KPMG was able to identify general areas of higher risk. Following the classification of high, medium, and low risk areas, we developed an audit plan consisting of four evaluation techniques to effectively analyze the high risk areas and also a number of medium and lower risk areas as well. Our audit used the analytical techniques or methodologies listed below:

- **Structured Interviews with Key Management and Staff.** KPMG conducted over 30 interviews with management and staff most familiar with the overall departmental operations as well as the specific operating practices, job responsibilities and organizational climate in each area. KPMG interviewed DBI employees in a variety of functional areas and management levels within the DBI. These interviews permitted not only a "top-down" view of internal operations and practices, but also a bottom-up and lateral perspective as well.

- **Review of Relevant Documentation.** The team reviewed hundreds of pages of numerous Department documents addressing performance data, standard operating procedures, customer outreach programs, prior audits, general and specific departmental policies, and governing regulations.

- **Business Process Analysis.** In the conduct of this task we evaluated the current state of the operational practices and systems in the DBI. KPMG developed "as is" process maps, physically examined the activities performed in the divisions via operational walkthroughs and inspector "ride-alongs," refined our initial findings via the use of focus groups and follow-on focus interviews, and identified specific problem/weakness areas requiring the DBI leadership's attention.

- **Organizational Analysis.** The team conducted an extensive span of control analysis of the DBI's administrative and operational functional areas to help us evaluate the efficiency and effectiveness of current operations. This effort examined current ratios of managers to supervisors across the entire DBI as well as high-risk areas, and layers of management. We also analyzed the employee utilization practices of the DBI and evaluated the effectiveness of the Department's training program. Both efforts were supported by two confidential surveys developed and distributed by the KPMG audit team.

- **Benchmarking Survey.** KPMG's audit team conducted surveys of comparative candidates both within and outside of the State of California soliciting information on key performance indicators of the Department. KPMG worked closely with members of the DBI leadership to select these peer candidates and indicators to ensure the viability of the resulting benchmarking analysis and the identification of meaningful comparisons.

- **Performance Measurement Study.** Performance measurement is not simply concerned with collecting data. It is better thought of as an overall management system with the goal of increasing the efficiency and effectiveness of the process or the product. Performance measurement actions operate in a continuous cycle allowing options for expansion and improvement of the work process or product as better techniques are discovered and implemented. KPMG conducted a comprehensive review of the Department's current performance measurement program reviewing data collection and analysis protocols along with sample sets of performance data.

- **Focused Expenditure Review.** At the special direction of the City Controller's Office KPMG conducted a limited audit of the Department's expenditures for the purchase of laptop computers. KPMG examined authorization documentation; relevant purchase orders and conducted a sample serial number inventory of this equipment.

Constraints and Limitations

Constraints and Limitations present special factors that should be considered in the interpretation of the audit results. Key factors to consider include:

- In the execution of the performance audit the audit team followed generally accepted government audit standards as set forth in the General Accounting Office's Government Auditing Standards "Yellow Book".

- The audit was not intended to be a comprehensive review of all program and functions in the Department. The Phase One Risk Assessment identified several high-risk areas within the Department that we used to focus our audit team's efforts during Phase Two. Several functional areas where noticeable risk was identified were not addressed due to time and budgetary constraints.

- The audit team observed DBI operations, accompanied Department personnel in the conduct of their field inspection activities; reviewed extensive amounts of data, records and documents provided by the DBI staff. It was not within the scope of this effort to validate secondary sources of information.

The audit team was not afforded the opportunity to interview the members of the Building Inspection Commission for their input to this audit. KPMG did receive written input from one BIC commissioner that we incorporated into the scope of this audit to an extent consistent with the results of our Phase One risk Assessment.

Report Organization

KPMG organized the City and County Department of Building Inspection Performance Audit Report into the following:

- **Executive Summary**: outlines the major report recommendations addressing areas to sustain and opportunities for improvement

- **Introduction –** describes the audit scope, approach, and methodology used to conduct fieldwork activities as well as limitations and constraints pertinent to interpretations of the audit findings.

- **Business Process Analysis –** contains an overview of our BPA approach; detailed observations, analysis, findings and recommendations in the ***functional operations*** of the Inspection and Plan Check Divisions.

- **Organizational Analysis–** contains an overview of our Organizational Analysis approach; detailed observations, analysis, findings and recommendations on the ***organizational structure and training program*** of the Department of Building Inspection.

- **Benchmarking Study-** contains an overview of our Benchmarking approach, detailed analysis and findings resulting from our ***peer comparison of performance indicators from the Inspection and Plan Check Divisions*** and recommendations for improving operations in these areas.

- **Performance Measurement Study –** contains an overview of our approach to studying performance measures, detailed observations and analysis, and findings from our ***review of the DBI's data collection methods and analysis of performance information*** from the Inspection and Plan Check Divisions. We also offer recommendations for improving operations in these areas.

- **Focused Expenditure Review –** contains an overview of our audit approach; detailed observations analysis and findings from our efforts to ***determine the disposition of the DBI's laptop computers***.

- **Appendices –** presents additional information references in the body of the report such as Phase One Risk Assessment, benchmarking survey responses, etc.

BUSINESS PROCESS ANALYSIS

Introduction

Business processes are a key element in any organization's operations. As part of our performance audit, KPMG examined the DBI's core business processes to understand, evaluate, and identify opportunities for improvement in each of them. KPMG utilized the results of its Phase One risk assessment to identify the following four core processes:

- Inspection Operations (Electrical, Plumbing, Building, Housing)
- Plan Check Operations (Mechanical, Major Project, Commercial, Residential)
- Central Permit Bureau permit issuance
- One-Stop permit issuance

In this section of the report, we discuss each of these core business processes in the content outlined below:

- Overview
- Approach and Activities
- Findings and Analysis
- Recommendations

Inspections

Overview

The Department of Building Inspection performs approximately 127,000 inspections on an annual basis, maintaining specialty inspectors in four different inspection divisions as listed below:

- Plumbing
- Electrical
- Building
- Housing

Process Beginning and End Points

The inspection process can be initiated in two ways. Both involve action by Department 'customers,' either those holding permits for construction or those suspecting City codes are being violated.

- Permit-holders initiate the inspection process by requesting an inspection of ongoing construction by Building, Plumbing or Electrical inspectors, as a step in securing the final approval of a permit upon completion.
- Those suspecting code violations initiate the inspection process by filing a complaint, usually by telephone, and identifying the suspected property for investigation by the Department's Housing Inspectors.

The inspection process ends when either:

- An inspector issues the final approval of a construction permit, after all the required inspections of the construction project are successfully completed; or
- A Housing inspector certifies that the suspected structure is in compliance with health and safety codes.

Key Tasks and Responsibilities

Key tasks and participants in the process are as follows:

- Clerical staff establish an appointment for the inspection of construction underway or the investigation the validity of a complaint;
- Inspectors collect all background information on the inspection or complaint;
- Inspectors performing the inspection(s), and
- Inspectors document results of the inspection(s) on specialized forms and logs.

Automation

The use of automation varies among inspection divisions.

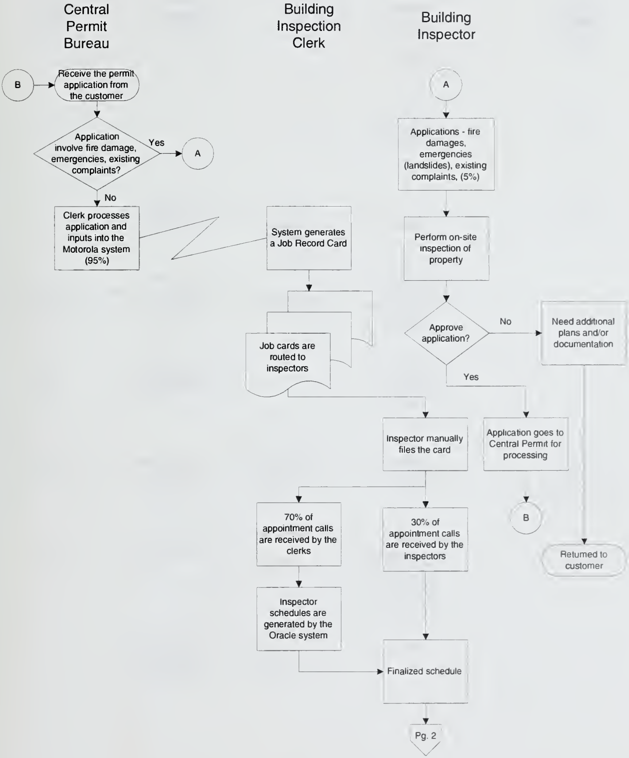
- Housing and Building divisions use the Oracle 2000 system to generate inspection appointment schedules, research background information, and document inspection results.
- Electrical and Plumbing divisions use a combination of manual processes and the legacy Oracle system to perform these tasks.

Process Times and Benchmarks

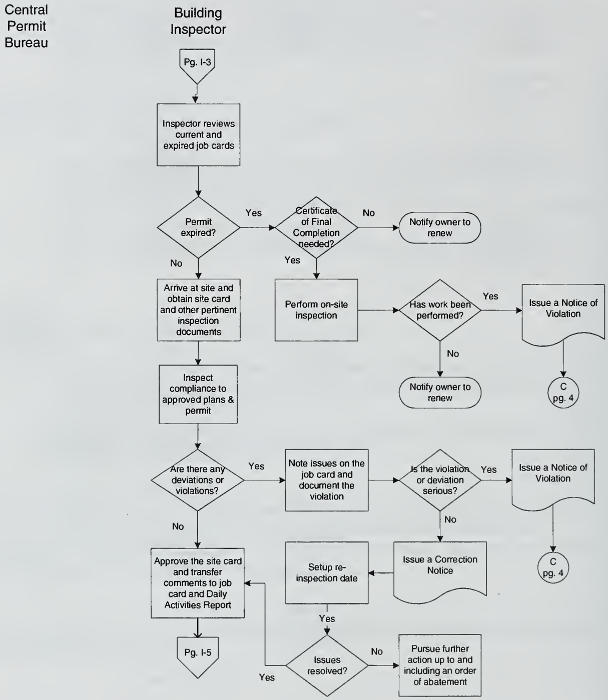
Times for inspections vary considerably depending on the complexity of the inspection as well as transportation and parking difficulties. Each separate division maintains inspections per inspector per day targets to measure performance. These are discussed in detail in the section on performance measures.

Process flow diagrams for the Building, Plumbing/Electrical and Housing Inspection divisions follow on pages 3 –12 .

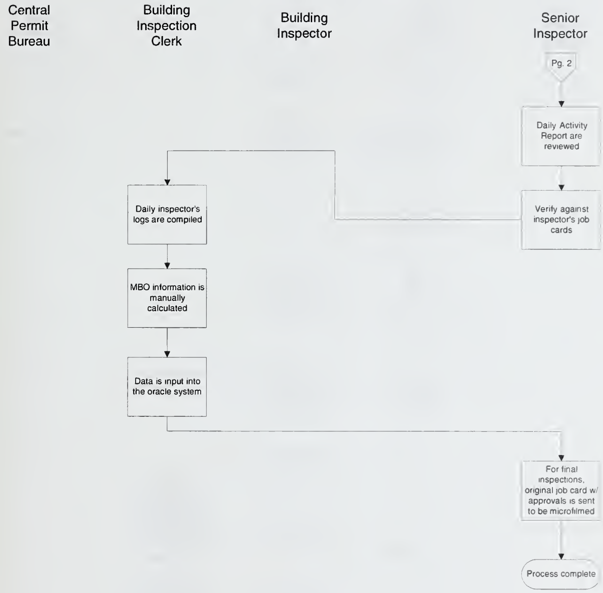
San Francisco Department of Building Inspection
Building Inspection Services Process Flow
Figure I - 1A


Central Permit Bureau
Building Inspection Clerk
Building Inspector
B
Receive the permit application from the customer
Application involve fire damage, emergencies, existing complaints?
Yes
A
No
Clerk processes application and inputs into the Motorola system (95%)
System generates a Job Record Card
Job cards are routed to inspectors
A
Applications - fire damages, emergencies (landslides), existing complaints, (5%)
Perform on-site inspection of property
Approve application?
No
Need additional plans and/or documentation
Yes
Inspector manually files the card
Application goes to Central Permit for processing
B
Returned to customer
70% of appointment calls are received by the clerks
30% of appointment calls are received by the inspectors
Inspector schedules are generated by the Oracle system
Finalized schedule
Pg. 2

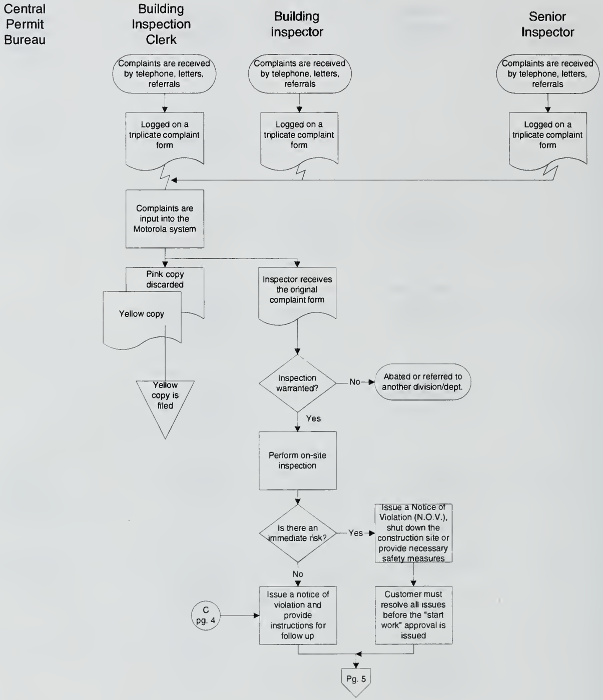
San Francisco Department of Building Inspection
Building Inspection Services Process Flow
Figure I - 1B


Central Permit Bureau
Building Inspector
Pg. I-3
Inspector reviews current and expired job cards
Permit expired?
Yes
Certificate of Final Completion needed?
No
Notify owner to renew
No
Yes
Arrive at site and obtain site card and other pertinent inspection documents
Perform on-site inspection
Has work been performed?
Yes
Issue a Notice of Violation
No
Notify owner to renew
C pg. 4
Inspect compliance to approved plans & permit
Are there any deviations or violations?
Yes
Note issues on the job card and document the violation
Is the violation or deviation serious?
Yes
Issue a Notice of Violation
No
No
C pg. 4
Approve the site card and transfer comments to job card and Daily Activities Report
Setup re-inspection date
Issue a Correction Notice
Yes
Pg. I-5
Issues resolved?
No
Pursue further action up to and including an order of abatement
Yes

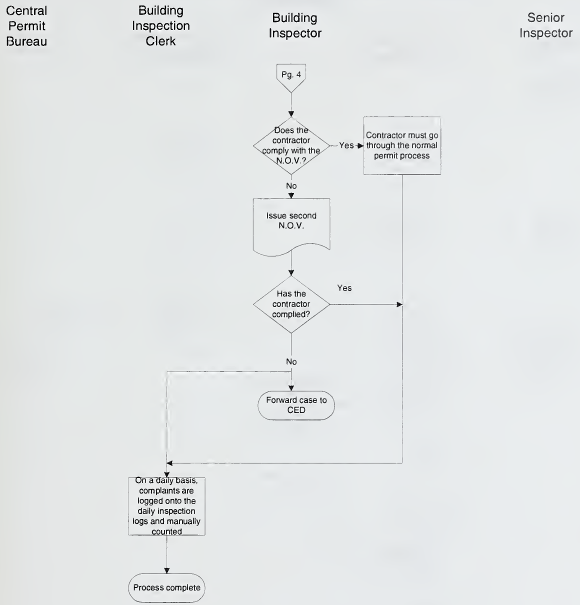
San Francisco Department of Building Inspection
Building Inspection Services Process Flow
Figure I -1C


Central Permit Bureau
Building Inspection Clerk
Building Inspector
Senior Inspector
Pg. 2
Daily Activity Report are reviewed
Verify against inspector's job cards
Daily inspector's logs are compiled
MBO information is manually calculated
Data is input into the oracle system
For final inspections, original job card w/ approvals is sent to be microfilmed
Process complete

San Francisco Department of Building Inspection
Building Division Complaints Process Flow
Figure I - 1D

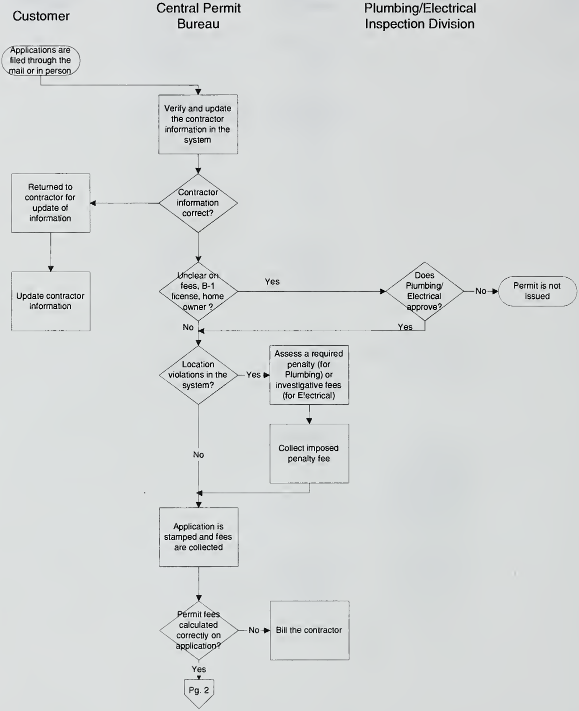

Central Permit Bureau
Building Inspection Clerk
Building Inspector
Senior Inspector
Complaints are received by telephone, letters, referrals
Complaints are received by telephone, letters, referrals
Complaints are received by telephone, letters, referrals
Logged on a triplicate complaint form
Logged on a triplicate complaint form
Logged on a triplicate complaint form
Complaints are input into the Motorola system
Pink copy discarded
Yellow copy
Yellow copy is filed
Inspector receives the original complaint form
Inspection warranted?
No
Abated or referred to another division/dept.
Yes
Perform on-site inspection
Is there an immediate risk?
Yes
Issue a Notice of Violation (N.O.V.), shut down the construction site or provide necessary safety measures
No
Issue a notice of violation and provide instructions for follow up
C pg. 4
Customer must resolve all issues before the "start work" approval is issued
Pg. 5

San Francisco Department of Building Inspection
Building Division Complaints Process Flow
Figure I - 1E

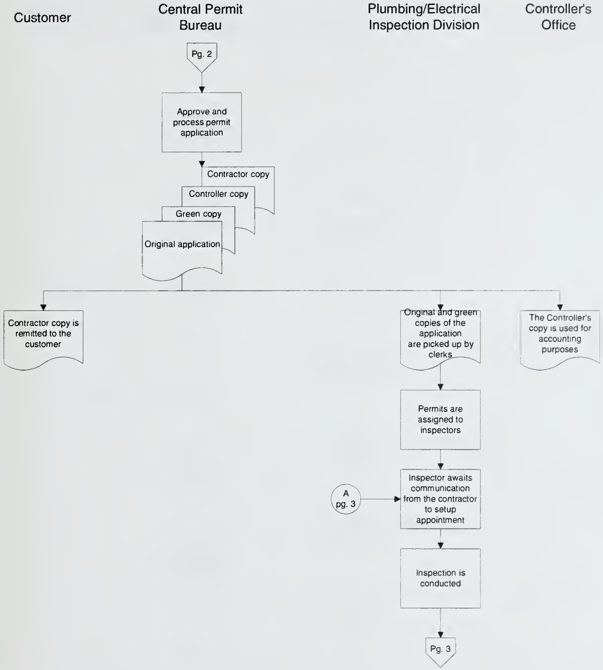

Central Permit Bureau
Building Inspection Clerk
Building Inspector
Senior Inspector
Pg. 4
Does the contractor comply with the N.O.V.?
Yes
Contractor must go through the normal permit process
No
Issue second N.O.V.
Has the contractor complied?
Yes
No
Forward case to CED
On a daily basis, complaints are logged onto the daily inspection logs and manually counted
Process complete

San Francisco Department of Building Inspection Plumbing/Electrical Inspection Division Process Flow

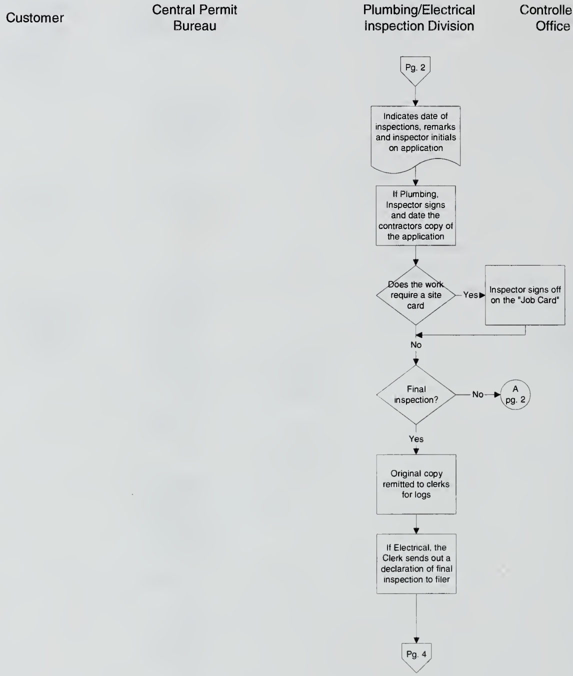
Figure I - 2A


Customer
Central Permit Bureau
Plumbing/Electrical Inspection Division
Applications are filed through the mail or in person
Verify and update the contractor information in the system
Contractor information correct?
Returned to contractor for update of information
Update contractor information
Unclear on fees, B-1 license, home owner ?
Yes
Does Plumbing/ Electrical approve?
No
Permit is not issued
Yes
No
Location violations in the system?
Yes
Assess a required penalty (for Plumbing) or investigative fees (for Electrical)
Collect imposed penalty fee
No
Application is stamped and fees are collected
Permit fees calculated correctly on application?
No
Bill the contractor
Yes
Pg. 2

San Francisco Department of Building Inspection
Plumbing/Electrical Inspection Division Process Flow
Figure I - 2B

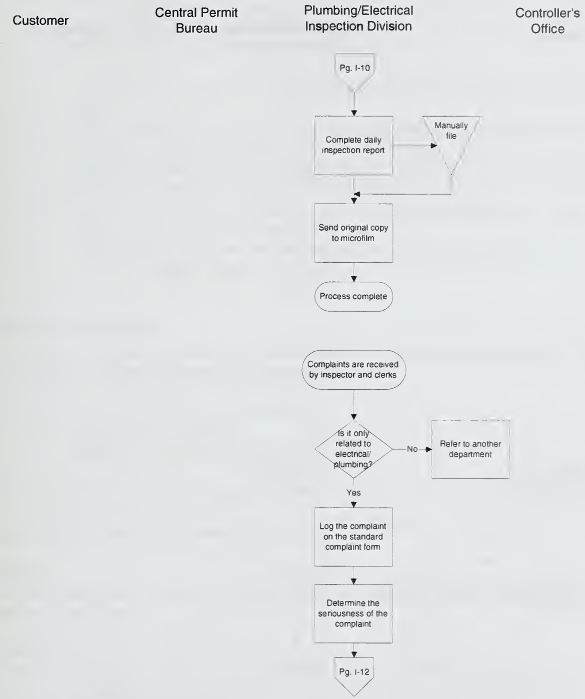

Customer
Central Permit Bureau
Plumbing/Electrical Inspection Division
Controller's Office
Pg. 2
Approve and process permit application
Contractor copy
Controller copy
Green copy
Original application
Contractor copy is remitted to the customer
Original and green copies of the application are picked up by clerks
The Controller's copy is used for accounting purposes
Permits are assigned to inspectors
A pg. 3
Inspector awaits communication from the contractor to setup appointment
Inspection is conducted
Pg. 3

San Francisco Department of Building Inspection
Plumbing/Electrical Inspection Division Process Flow
Figure I - 2C


Customer
Central Permit Bureau
Plumbing/Electrical Inspection Division
Controller's Office
Pg. 2
Indicates date of inspections, remarks and inspector initials on application
If Plumbing, Inspector signs and date the contractors copy of the application
Does the work require a site card
Yes
Inspector signs off on the "Job Card"
No
Final inspection?
No
A pg. 2
Yes
Original copy remitted to clerks for logs
If Electrical, the Clerk sends out a declaration of final inspection to filer
Pg. 4

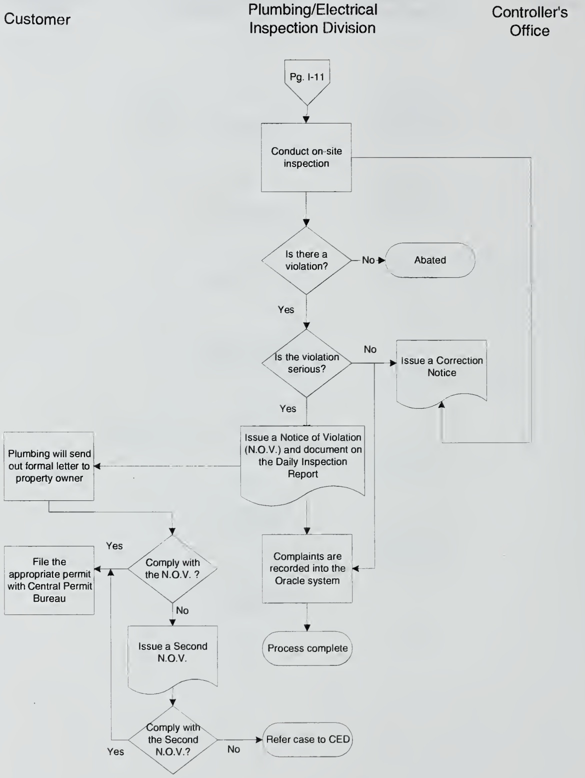
San Francisco Department of Building Inspection Plumbing/Electrical Inspection Division Process Flow

Figure I - 2D


Customer
Central Permit Bureau
Plumbing/Electrical Inspection Division
Controller's Office
Pg. I-10
Complete daily inspection report
Manually file
Send original copy to microfilm
Process complete
Complaints are received by inspector and clerks
Is it only related to electrical/ plumbing?
No
Refer to another department
Yes
Log the complaint on the standard complaint form
Determine the seriousness of the complaint
Pg. I-12

San Francisco Department of Building Inspection Plumbing/Electrical Inspection Division Process Flow

Figure I - 2E


Customer
Plumbing/Electrical Inspection Division
Controller's Office
Pg. I-11
Conduct on-site inspection
Is there a violation?
No
Abated
Yes
Is the violation serious?
No
Issue a Correction Notice
Yes
Issue a Notice of Violation (N.O.V.) and document on the Daily Inspection Report
Plumbing will send out formal letter to property owner
Yes
File the appropriate permit with Central Permit Bureau
Comply with the N.O.V. ?
No
Complaints are recorded into the Oracle system
Issue a Second N.O.V.
Process complete
Comply with the Second N.O.V.?
Yes
No
Refer case to CED

Approach and Activities

To examine the inspection process and associated activities KPMG utilized:

- Process flow diagrams mapping "as is" processes to identify:

    - Weaknesses in internal controls
    - Manual vs. automated interfaces
    - Inefficiencies in the process workflow

- Focus groups to confirm our understanding of the process and correct process maps
- Background data reviews including operating procedures manuals and forms to obtain a further understanding of the organization
- Operational walk-throughs and "ride-alongs" with inspectors for the purpose of assessing compliance with standard operating procedures
- Interviews with division managers, senior inspectors and inspectors to gain an understanding of activities performed
- Additional test work and sample analysis performed in our subsequent September 2000 review

Findings and Analysis

As a result of our activities and based on our analysis of the information gathered, KPMG identified the following opportunities for improvement:

- Information Systems and Automation
- Policies and Procedures
- Additional Observations

Each of these opportunities are discussed below.

Information Systems and Automation

Finding

I-1. The Department's existing inspection records processes are paper driven and manually intensive.

Analysis

Currently, the necessity to manually log information onto a series of forms delays the process for conducting an inspection and reporting the results. KPMG observed the inspection process in detail during a "ride-along" with a Department inspector. The inspector:

- Arrived at the site and requested the site card from the contractor or property owner;

- Deciphered other inspectors' comments and reviewed expired permits prior to beginning the inspection;
- Completed the inspection by approving the work performed on the site card;
- Transferred the comments from the owner's site card to the Department's job card maintained on file;
- Transferred logistical information and comments to the daily activity report, and
- Delivered the daily activity report to division clerks for input into the Oracle system.

The table below outlines the various forms used in the inspection records process.

Table I-1 – Inspection Record Forms

Forms in Order of Usage	Description, Level of Automation
Building Inspection Job Card	Automated printout of initial inspection information drawn from permit application record.
Building Inspectors Job Record	Blank card for inspector to hand - record inspection comments.
DBI Job Card (on Site)	Handwritten card with minimal permit information. To be posted on job site.
DBI Inspection Record and Supplement (on Site)	Handwritten card with date and inspector signature spaces to note inspection approvals. Kept on job site.
Inspection History (on Oracle system)	System record of permit information and inspection activities.

Manual transfers of information performed by electrical, plumbing and building inspectors are inefficient and consume time that could be utilized for additional inspection activities. However, anecdotal evidence suggests that many inspectors accustomed to handwritten note entry would resist efforts to fully automate the inspection records process if note entry by key pad is necessary while in the field.

Finding

I-2. The new Oracle 2000 system has replaced the multiple information systems used in 1999 for different parts of the inspection process, eliminating inefficiencies and resulting in less system 'down time.'

Analysis

Multiple Systems Replaced

In our 1999 review, KPMG found multiple information systems in use in different divisions of the Department. The Housing Inspections division employed the most advanced technology, using the Oracle system to track complaints, maintain complaint history, generate automated forms and track routine inspections.

However, within the remaining three inspection divisions, the use of the system was segmented. The Building Inspection division utilized the Oracle system to generate inspector schedules and log inspection requests. Background and history of a specific permit, however, were accessible only through the Motorola system. Other Inspection divisions, i.e. Plumbing and Electrical, only had access to the Motorola system and its limited functionality. These different processes and systems resulted in inefficiency and increased risk of data inaccuracy.

In our subsequent 2000 review, we found that all divisions throughout the Department utilized the Oracle system although not all were using the new 2000 version. As of September, 2000, both the Housing and the Building Inspection Divisions utilized the Oracle 2000 system for most aspects of their work. Electrical and Plumbing Divisions were in the process of migrating from the legacy Oracle system to the new Oracle 2000 system.

System 'Down Time' Reduced
During our July 1999 review, comments from focus group participants throughout the department suggested that Motorola system 'freezes' and 'slow downs' were frequent events. MIS (Management Information Systems) staff confirmed these observations in our subsequent September 2000 review but could not provide locate documentation in form of server logs to tabulate the actual frequency of system 'down time'. KPMG did, however, review server incident logs for the Oracle system for a four month period in 2000. This review yielded an average of 4.5 incidents per month or a total of 18 during the period examined, a sharp decrease in the frequency of incidents noted in our 1999 interview comments.

Finding
I-3. The current inspector 'office hours' schedule is not efficient or customer-friendly.

Analysis
In the course of conducting inspector "ride-alongs", KPMG observed that a substantial portion of the time is spent driving to inspection sites. Specifically, in the course of our "ride-along" approximately two of the six hours in the field were spent driving and logging information on multiple job and site cards. Inspectors also 'split' their office hour schedule. For example, Building inspectors spend one hour in the morning and approximately an hour and a half in the afternoon in the DBI to prepare paperwork, schedule appointments and take phone calls. The split office hours increase overall commuting time because inspectors must leave the office to enter the field in the morning, and return to the office later in the afternoon, reducing the time available for inspections.

Additionally, customers must cope with different schedules and procedures to request an inspection from each of these three divisions. Each division maintains separate hours within which customers may call in to request inspections. In some divisions inspectors must speak directly to customers to confirm inspection times; in others administrative support staff can do this. Technology to support customer access is also lacking. One division has no voice mail and none allow automated scheduling of inspections.

Recommendations

I-1. Standardize customer access to scheduling Building, Plumbing and Electrical inspections.

Along with installation of an IVR (Interactive Voice Response) system recommended below, the standardization of access hours for customer requests to schedule inspections would alleviate the current variation in inspection request availability.

I-2. The Department should consider automating the flow of information in the inspection process

In reviewing automation needs, DBI should consider the following model process incorporating new technologies for inspections:

- Customers call in and schedule inspections utilizing an Interactive Voice Response System linked to Oracle system records of district inspection appointments previously made;
- Inspection appointment schedules are generated for each district and the responsible inspector;
- Appointment schedules are downloaded into a handheld device (similar to utility company meter readers or parking patrol ticket issuing apparatus) from the Oracle system;
- Inspectors carry the handheld device into the field with permit histories downloaded. The inspector then performs the inspection, notes completion or violation comments, and generates a receipt as needed. (Our observations indicate that most inspections do not require any paperwork to be distributed to the customer, only notation of completion and approval.), and
- Upon completion of daily inspections, inspectors return to the office and plug the handheld device into a carousel for upload and synchronization of collected data into the Oracle system.

Given the resistance of some inspectors to the possibility of an automated process requiring key pad rather than written note entry, systems allowing note entry with an "electronic pen" or similar instrument should be considered.

Plan Check

Overview

The four Plan Check divisions are responsible for reviewing and approving residential, commercial and major project plans upon receipt by the Central Permit Bureau. Over the past year, plan checkers reviewed an estimated 9000 plans for structural, mechanical, and architectural code compliance.

Process Beginning and End Points
The plan check process begins with the submission of plans for 'behind the counter' review by the customer. The process outlined here does not include the majority of plans that are checked 'over the counter.' The process ends when plans with all the required approvals are forwarded to the One Stop division or Central Permit Bureau for permit issuance.

Key Tasks and Responsibilities
Key tasks and participants in the plan check process include:

- Plan Check clerical staff transport plans from the application counter to the proper plan check bin for the Residential, Commercial or Major Project Plan Check divisions.
- Plan Check professionals reviewing plan drawings for architectural, structural, and mechanical code compliance.
- Plan Check staff in other city departments such as Planning, Public Works and Health review the plans as necessary.
- All Plan Check reviewers record comments on plans with required revisions and notify customers.
- Customers make the necessary alterations to plans and resubmit for secondary review.
- When all revisions necessary are complete, Plan Check reviewers approve plans and forward for permit issuance.

Automation
Automation of the plan check process is minimal. To track the progress of plans through the process (using the Permit Tracking Information System or PTIS) each plan check clerk must enter the dates they receive plans into the system. Plan tracking is discussed further in Section III on performance measures.

Process Times and Benchmarks
The Department tracks plan check process times and routing using the Permit Tracking System in Oracle system. However, inaccuracies in data entry and limitations of reporting formats remain. These shortcomings are discussed further in Section III on performance measures.

Approach and Activities

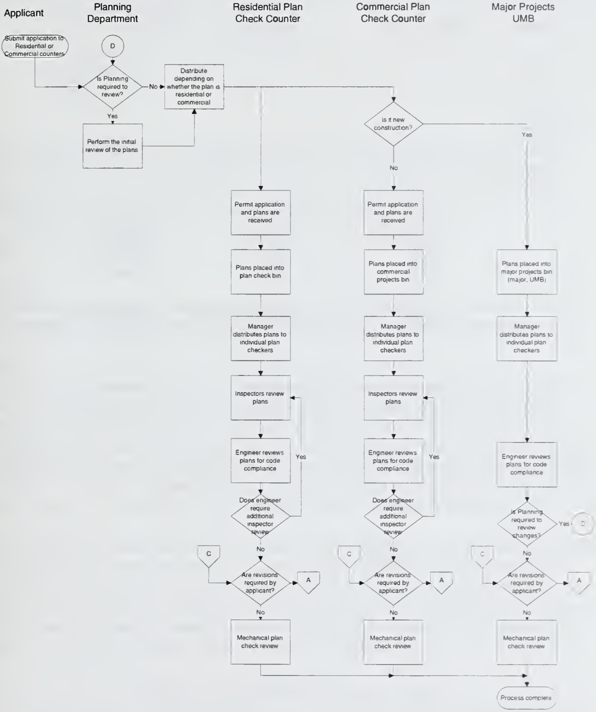
As part of our analysis of the Plan Check divisions, KPMG performed the following:

- Prepared process maps using Visio software to identify application workflow and weaknesses in the process
- Conducted focus groups to confirm our understanding of existing processes and identify inefficiencies
- Reviewed plan check operating procedure manuals to further our understanding and determine adherence to Department policy

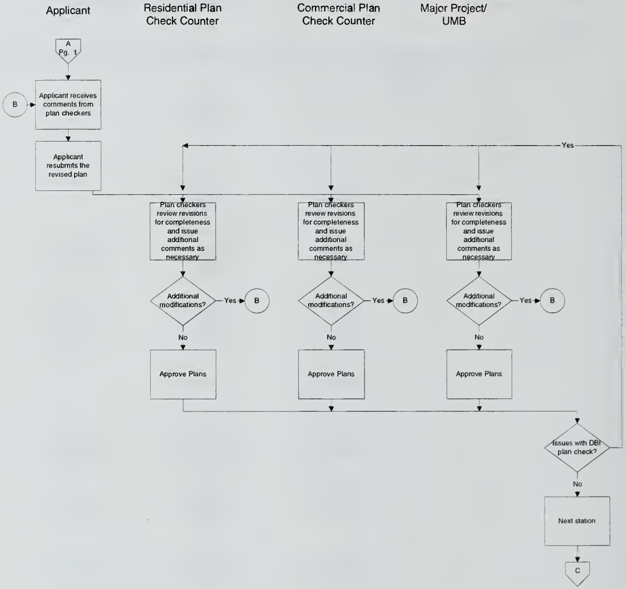
- Performed walk-throughs of plan check operations
- Conducted interviews with plan check managers and plan checkers
- Additional test work and sample analysis performed in our subsequent September 2000 review

Process flow diagrams for the Plan Check divisions follow on pages I-19 – I-20 .

San Francisco Department of Building Inspection
Plan Check Process Flow
Figure I - 4A


Applicant
Planning Department
Residential Plan Check Counter
Commercial Plan Check Counter
Major Projects UMB
Submit application to Residential or Commercial counters
D
Is Planning required to review?
No
Yes
Perform the initial review of the plans
Distribute depending on whether the plan is residential or commercial
Is it new construction?
Yes
No
Permit application and plans are received
Permit application and plans are received
Plans placed into plan check bin
Plans placed into commercial projects bin
Plans placed into major projects bin (major, UMB)
Manager distributes plans to individual plan checkers
Manager distributes plans to individual plan checkers
Manager distributes plans to individual plan checkers
Inspectors review plans
Inspectors review plans
Engineer reviews plans for code compliance
Yes
Engineer reviews plans for code compliance
Yes
Engineer reviews plans for code compliance
Does engineer require additional inspector review
Does engineer require additional inspector review
Is Planning required to review changes?
Yes
D
No
No
No
C
C
C
Are revisions required by applicant?
Are revisions required by applicant?
Are revisions required by applicant?
A
A
A
No
No
No
Mechanical plan check review
Mechanical plan check review
Mechanical plan check review
Process complete

San Francisco Department of Building Inspection
Plan Check Process Flow
Figure I - 4B


Applicant
Residential Plan Check Counter
Commercial Plan Check Counter
Major Project/ UMB
A Pg. 1
B
Applicant receives comments from plan checkers
Applicant resubmits the revised plan
Yes
Plan checkers review revisions for completeness and issue additional comments as necessary
Plan checkers review revisions for completeness and issue additional comments as necessary
Plan checkers review revisions for completeness and issue additional comments as necessary
Additional modifications?
Yes
B
Additional modifications?
Yes
B
Additional modifications?
Yes
B
No
No
No
Approve Plans
Approve Plans
Approve Plans
Issues with DBI plan check?
No
Next station
C

Findings and Analysis

The plan check division's strengths result from the specialization of plan check reviews into four plan check categories:

- Residential
- Commercial
- Major
- Mechanical

Due to the different levels of resources required for each plan type, separate divisions were created to allow plan review staff to specialize and expedite the plan review process. The divisional specialization is intended to shorten plan turnaround time through individual specialization at one type of plan review.

"Over the Counter" Plans

Finding

I-4. A number significant number of plans taken in for "behind-the-counter" reviews take less than 30 minutes and may potentially be reviewed "over-the-counter."

Analysis

Currently, counter clerks are able to 'review' many simple plans over the counter, and plan check professionals staffing the counter can review additional plans of limited complexity. Additional plans requiring 'behind the counter' reviews by engineers are accepted for review and must wait in 'backlog' status until reviewed by plan check staff. KPMG's June 1999 review estimated this backlog at two to four weeks. (Backlog times could not be estimated for our subsequent review in September 2000 due to ongoing data classification issues resulting from the migration to the Oracle 2000 system.)

By reviewing additional plans over the counter, the Department can minimize the number of plans for which approval is delayed due to the backlog period. We examined plan reviews performed over two separate two-week periods in July and August 2000 to determine the proportion of 'behind the counter' reviews with comparatively brief actual review times. Our analysis determined that actual reviews of a significant minority of plans took 30 minutes or less, as summarized in the table below.

Table I-2 – Average Actual Review Times

Period Examined	Actual Review Time	% of Total Reviews Performed in Period
July 1 – 15, 2000	30 minutes or less	20% or (151 of 776)
	15 minutes or less	3% or (25 of 776)
August 1 – 15, 2000	30 minutes or less	19% or (160 of 847)
	15 minutes or less	3% or (27 of 847)

Many but not all reviews under 30 minutes, e.g. mechanical reviews or repeated structural reviews of the same plan set, may be candidates for over the counter reviews by plan review professionals staffing the counter.

Process Workflow

Finding

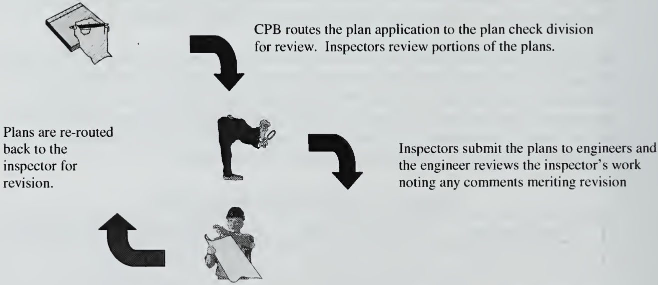
I-5. The use of inspectors to perform an initial first review of plans followed by secondary reviews by engineers does not appear to be efficient nor cost-effective.

Analysis

Current plan check processes call for plan checking staff with a building inspector classification to review certain, less technical, aspects of plans while leaving more complex structural and architectural issues to staff with an engineering classification. This division of labor is designed to allow more highly-paid and trained engineers to focus their time on tasks requiring their specialized expertise. In practice, the gains in efficiency and cost savings of this practice are unclear. However, the extent of this condition could not be estimated by a review of associated documentation. Specifically, focus group feedback indicated that:

- The potential exists for building inspectors with plan check duties to miss potential code issues due to their limited expertise. These issues are subsequently identified by engineers with plan check duties during their second stage check.
- Building inspector staff may take longer to review the less technical elements of the plan than the time needed by engineers to review these same elements.

Additionally, building inspectors are eligible for overtime pay while engineers are not. A brief overview of the inspector and engineer roles in the process is diagrammed below.



CPB routes the plan application to the plan check division for review. Inspectors review portions of the plans.

Inspectors submit the plans to engineers and the engineer reviews the inspector's work noting any comments meriting revision

Plans are re-routed back to the inspector for revision.

Figure I – 5 – Inspector and Engineer Roles in DBI Plan Review

While current engineering positions in the plan check divisions are primarily filled by civil engineers, *associate* civil engineers (with a lower pay scale) may prove to be more effective as plan review staff than building inspectors. In addition, salary levels paid to building inspectors and associate engineers appear to be similar.

Table I-3 – Comparison of Associate Engineer and Building Inspector Salary Scales

Job Classification	Entry Salary	Salary Ceiling
Associate Civil Engineer	$56,976	$69,269
Building Inspector	$59,691	$72,532

It should be noted that union objections may be raised to any elimination of the building inspectors' role in the plan review process. Official job descriptions for the building inspector positions include plan review duties.

Finding
I-6. Quality Control check records can provide useful information on potential changes for increased efficiency in the plan review process.

Analysis
Currently, all approved plans are routed to the One-Stop division for a quality control review for completeness including appropriate approvals, occupancy numbers, building codes and fee stamps. Plans 'passing' the quality control check are then forwarded to the Central Permit Bureau and again reviewed by the CPB staff. A review of Quality Control check documentation for 20 permit applications resulted in the following observations:

- In 20% of the applications reviewed, the Quality Control check identified plans that either had not been routed through Mechanical Plan Check as required or were missing approvals or signatures from their reviewers.
- In 15% of the applications reviewed, the Quality Control Check identified plans that had outstanding complaints requiring Housing Inspection review.

Of the 4 plans returned to Mechanical Plan Check, one required an additional 19 calendar days before the completion of the review process.

Recommendations

I-3. The Department should examine the potential for increasing the presence of engineering staff on plan check counters and modifying current application screening procedures to maximize the number of "over the counter" plan check approvals.

By increasing the volume of "over the counter" approvals, the Department can limit the number of plans taken in for 'behind the counter' review and reduce plan check backlogs. To determine the benefits of an increased engineering staff presence at plan check counters, the following approaches should be examined:

- From a sample of all plans accepted for behind the counter review, determine what percentage could be checked OTC by plan check engineers, and the time required for doing so.

- By observation on random days, determine what percentage of plan check engineer time is spent actually performing OTC reviews as opposed to ancillary activities such as responding to general code questions. An OTC review may require additional time (as compared to a "behind the counter" review) because of the need for customer interaction.

Any change in plan check staffing patterns should be implemented only after studying the overall impact on plan check service levels for both OTC and "behind the counter" plans.

I-4. Examine the potential for utilizing engineering staff in place of current building inspector staff for plan check duties if union concerns can be addressed and additional personnel expenses are minimal.

Current plan check procedures call for plan checking staff with a building inspector classification to review specific, less technical aspects of plans while leaving more complex structural and architectural issues to staff with an engineering classification. However, in practice, the efficiency gains and cost savings of this practice are unclear.

Any change in plan check staffing patterns should be implemented only after determining if efficiency gains from utilization of engineer plan check staff outweigh the projected additional compensation costs. Union concerns may also need to be addressed.

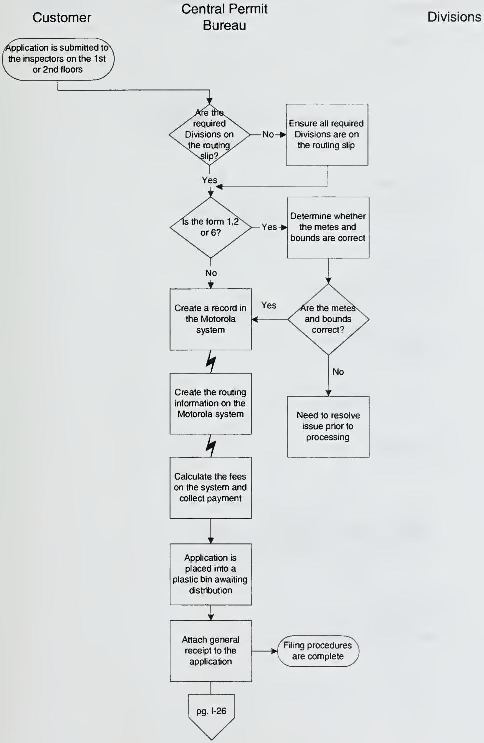
I-5. Conduct periodic reviews of Quality Control records to identify potential improvements in the plan review process and take steps to implement these.

Our review of Quality Control records, for example, identified two problem areas which the Department can take steps to minimize.

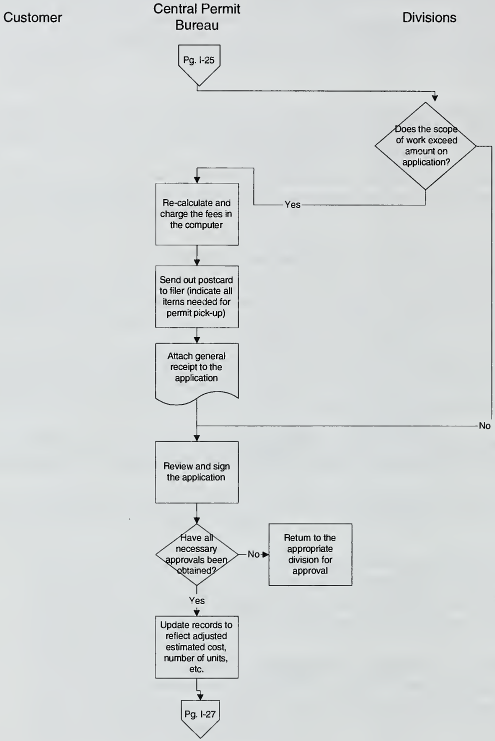
- Review by the Mechanical Plan Check section is frequently missed or lacks formal approval signatures (in 4 of 20 records examined). Greater care in the original routing of plans by reviewers or clerical staff using the bin system, and attention to procedural requirements by Mechanical Plan Check staff may assist in minimizing this problem.
- Applications with outstanding complaints are accepted into the review process without Housing Inspection clearance (in 3 of 20 records examined). Steps to ensure an initial check of complaint records before accepting plans into the review process could help minimize this problem.

Process flow diagrams for the Central Permit Bureau follow on pages I-25 to I-29 .

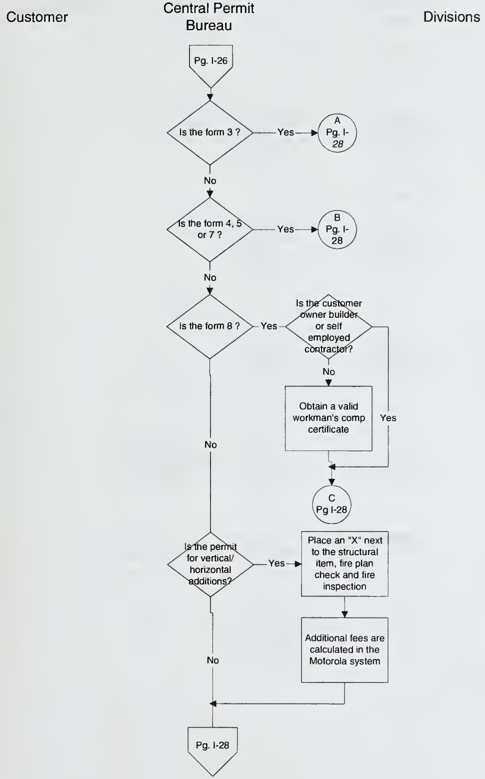
San Francisco Department of Building Inspection
Central Permit Bureau Process Flow
Figure I - 6A


Customer
Central Permit Bureau
Divisions
Application is submitted to the inspectors on the 1st or 2nd floors
Are the required Divisions on the routing slip?
No
Ensure all required Divisions are on the routing slip
Yes
Is the form 1,2 or 6?
Yes
Determine whether the metes and bounds are correct
No
Are the metes and bounds correct?
Yes
Create a record in the Motorola system
No
Create the routing information on the Motorola system
Need to resolve issue prior to processing
Calculate the fees on the system and collect payment
Application is placed into a plastic bin awaiting distribution
Attach general receipt to the application
Filing procedures are complete
pg. I-26

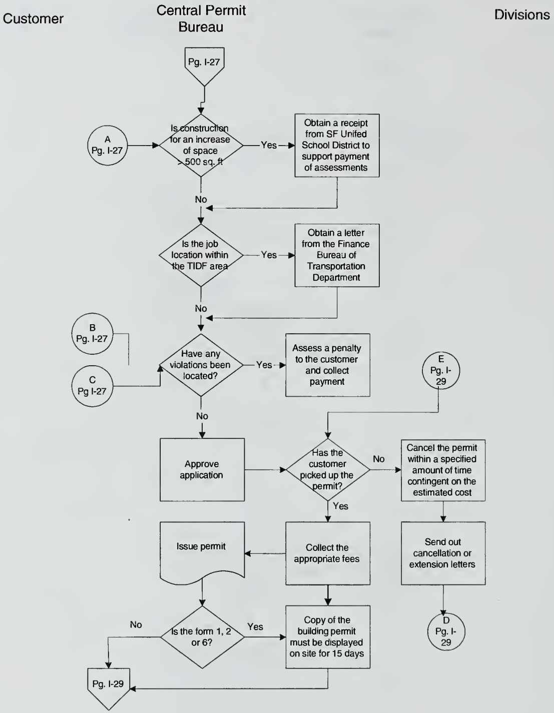
San Francisco Department of Building Inspection
Central Permit Bureau Process Flow
Figure I - 6B


Customer
Central Permit Bureau
Divisions
Pg. I-25
Does the scope of work exceed amount on application?
Yes
No
Re-calculate and charge the fees in the computer
Send out postcard to filer (indicate all items needed for permit pick-up)
Attach general receipt to the application
Review and sign the application
Have all necessary approvals been obtained?
No
Return to the appropriate division for approval
Yes
Update records to reflect adjusted estimated cost, number of units, etc.
Pg. I-27

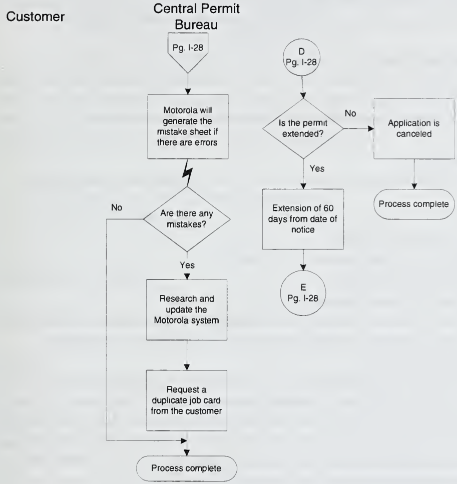
San Francisco Department of Building Inspection
Central Permit Bureau Process Flow
Figure I - 6C


Customer
Central Permit Bureau
Divisions
Pg. I-26
Is the form 3 ?
Yes
A Pg. I-28
No
Is the form 4, 5 or 7 ?
Yes
B Pg. I-28
No
Is the form 8 ?
Yes
Is the customer owner builder or self employed contractor?
No
Obtain a valid workman's comp certificate
Yes
C Pg I-28
No
Is the permit for vertical/ horizontal additions?
Yes
Place an "X" next to the structural item, fire plan check and fire inspection
Additional fees are calculated in the Motorola system
No
Pg. I-28

San Francisco Department of Building Inspection
Central Permit Bureau Process Flow
Figure I - 6D


Customer
Central Permit Bureau
Divisions
Pg. I-27
A Pg. I-27
Is construction for an increase of space >500 sq. ft
Yes
Obtain a receipt from SF Unifed School District to support payment of assessments
No
Is the job location within the TIDF area
Yes
Obtain a letter from the Finance Bureau of Transportation Department
No
B Pg. I-27
C Pg I-27
Have any violations been located?
Yes
Assess a penalty to the customer and collect payment
E Pg. I-29
No
Approve application
Has the customer picked up the permit?
No
Cancel the permit within a specified amount of time contingent on the estimated cost
Yes
Issue permit
Collect the appropriate fees
Send out cancellation or extension letters
No
Is the form 1, 2 or 6?
Yes
Copy of the building permit must be displayed on site for 15 days
D Pg. I-29
Pg. I-29

San Francisco Department of Building Inspection
Central Permit Bureau Process Flow
Figure I - 6E


Customer
Central Permit Bureau
Pg. I-28
Motorola will generate the mistake sheet if there are errors
Are there any mistakes?
No
Yes
Research and update the Motorola system
Request a duplicate job card from the customer
Process complete
D Pg. I-28
Is the permit extended?
No
Yes
Application is canceled
Process complete
Extension of 60 days from date of notice
E Pg. I-28

Central Permit Bureau

Overview

The Central Permit Bureau (CPB) is the main permit issuing body of the Department of Building Inspection. Over the past year, the CPB issued over 53,000 permits.

Process Beginning and End Points
The permitting process begins when plans with plan review approvals are received by the Central Permit Bureau. Clerks then begin the fee assessment and issuance process. The process ends when the customer pays for and collects the completed permit.

Key Tasks and Responsibilities
Permit clerks are the key participants in the process. They perform the following key tasks:

- Collecting all reviewed plans;
- Cross-checking for prior notices of violation;
- Assessing and collecting fees;
- Verifying final engineer approvals, and
- Ensuring that application packages are complete for permit issuance.
- Additional test work and sample analysis performed in our subsequent September 2000 review

Automation
Central Permit Bureau clerks rely on both the Oracle 2000 system throughout the process to research current and related permit activity, calculate fees and input final issuance information. However, many sub-tasks are performed manually including some fee computation and the creation of job cards for inspectors.

Process Times and Benchmarks
Process times for permit issuance vary widely and depend to a great extent on drivers external to the process. These include completeness and accuracy of plan review approvals, delays caused by unpaid fees by the applicant, and the requirements to obtain workman's compensation information.

Approach and Activities

In our analysis of the CPB and its activities KPMG utilized:

- Visio software for mapping the "as is" processes to identify:
    - Manual interfaces in the intake of applications and receipt from the plan checkers;
    - Role of the Oracle system;
    - Identification of various manual forms, and
    - Inefficiencies in the process;

- Focus groups to confirm our understanding of the process and correct process maps;
- Background data including operating procedure manuals and forms to obtain further understanding of the organization;
- Operational walk-throughs of CPB operations for the purpose of identifying standard operating procedures, and
- Interviews with CPB managers and staff.
- Additional test work and sample analysis performed in our subsequent September 2000 review

Based on the data obtained, KPMG noted that the Department has an opportunity to increase its operational efficiency in the following areas:

- Process Workflow
- Information Systems and Automation
- Customer Service

Findings and Analysis

Information Systems and Automation

Finding
I-7. The implementation of automated job card production using the new Oracle 2000 system has eliminated time-consuming manual transfers of data.

Analysis
Inspectors carry a job card with site details to their initial inspection. The implementation of the new Oracle 2000 system has automated the previously manual process of producing these cards.

KPMG's review conducted in June of 1999 revealed that approximately 10 minutes was required by CPB staff to manually transfer on-screen data from the former Motorola system to each job card. Based on the 53,000 permits issued annually, approximately 8,800 hours or 1100 work days were previously utilized for manually transferring job card data. This time-consuming process has been eliminated with the introduction of the Oracle 2000 system.

Finding
I-8. The Central Permit Bureau clerical staff are generally highly accurate in their assessment and collection of Department fees.

Analysis
Our review of a sample of 25 plumbing, electrical, building and plan check fee assessment receipts yielded 2 instances of inaccurate fee assessment. Each error accounted for a negligible amount (1/10%) of the total amount in the sample. The table

below summarizes the fee assessment errors found, their proportion in the sample, as well as the minimal loss in Department revenues that would result on an annual basis.

Table I-4 — Fee Assessments

Assessment Error	Amount	Total Fees in Sample	Error as % of Total Fees
No permit issuance fee charged (Plumbing, Mechanical Fee Receipt #400253)	$16.55	$13,484.00	0.12%
Excessive permit issuance fee charged (Plumbing, Mechanical Fee Receipt #400278)	$17.05	$13,484.00	0.13%

Estimated Annual Loss in Department Revenues:
Assessment Error @ 0.12% x FY 1998-1999 Fee Revenues @ $30,239,935 = $37,116

Customer Service

Finding
I-9. Central Permit Bureau staff must frequently respond to calls and customers incorrectly directed to their division resulting in operational interruptions.

Analysis
Based on information gathered from operational walk-throughs and focus interviews, KPMG learned the following:

- The majority of phone calls received are for inquiries unrelated to the CPB function. Most calls received must be routed elsewhere.
- Staff stated that at least once a day, customers arrive at the CPB counter to pick up their permits having been incorrectly informed that their permit is complete.
- CPB staff indicated that many of applicants are unaware they must pay a permit fee in addition to the plan check fee upon issuance of their permit and often do not have sufficient funds on hand. This results in a return trip by the customer.

These factors all contribute to decreased customer satisfaction and damage the perceived credibility of the department.

Recommendations

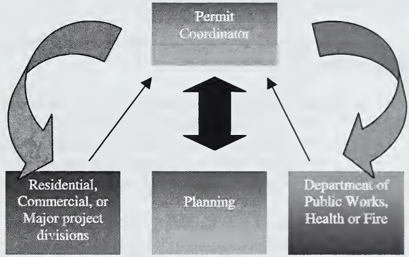
I-6. To minimize the amount of time spent answering phone calls by CPB staff, the Department should consider the implementation of an Interactive Voice Response (IVR) system.

An IVR would reduce the resources needed to answer phones and provide the customer easier access to the information requested (refer to the section on Organizational Analysis, Employee Utilization).

One-Stop Parallel Permit Process

Overview

The One Stop Permit program is designed to allow the parallel processing of plans requiring review by several city departments rather than the normal serial process, shortening the overall permit processing time. Applicants submit plans to permit coordinators who expedite simultaneous processing by the DBI and other city departments, as briefly illustrated in Figure I - 7 below:


Permit Coordinator
Residential, Commercial, or Major project divisions
Planning
Department of Public Works, Health or Fire

Permit coordinators collect the plans and route them to the appropriate divisions and departments simultaneously.

After plans are reviewed by the divisions, they are returned to the permit coordinator for permit issuance.

Figure I - 7 One Stop Permit Coordination

Process Beginning and End Points
The One Stop process begins with the assignment of a permit coordinator to an applicant. Together, the customer and permit coordinator review the completeness of materials in the customer's application package. One Stop processing requires that the customer submit at least four copies of plans. The process ends when the One Stop division refers the approved plans to the Central Permit Bureau for final permit issuance.

Key Tasks and Responsibilities

Key tasks and participants in the process are:

- Permit Coordinators conduct an initial consultation with the permit applicant reviewing applications for completeness before acceptance;
- Permit Clerks route plans to DBI and on-site or off-site plan review staff from other city departments;
- Permit Coordinators relay comments requiring plan revisions to permit applicants, and relay revisions back to plan reviewers, and
- Permit Coordinators assemble approved multiple plans from different city departments and transfer comments to one unified set before forwarding to CPB for permit issuance.

Automation

The One Stop division maintains paper files on all One Stop permit applications. The division also uses the Oracle 2000 system for research on permit applications on an as-needed basis.

Process Times and Benchmarks

The KPMG project team was unable to determine average plan check process times due to inaccuracies in data entry and limitations of reporting formats. These shortcomings are discussed further in Section III on performance measures.

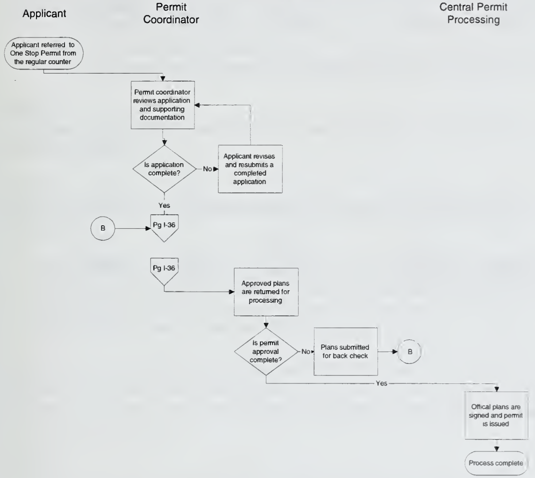
Approach and Activities

In assessing the major risks, inefficiencies and bottlenecks in the One-Stop process, KPMG utilized the following tools:

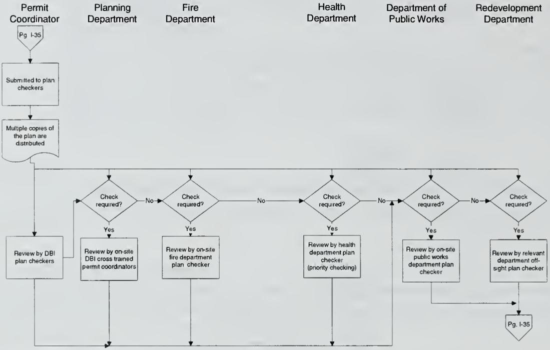
- Visio software for mapping the "as is" processes to identify:
    - Activities of the permit coordinator,
    - DBI and other department interaction, and
    - Inefficiencies in the process workflow;
- Focus groups to confirm our understanding of the process and correct process maps;
- Background data including operating procedure manuals and forms to obtain further understanding of the organization; and
- Interviews with One-Stop managers and staff.
- Additional test work and sample analysis performed in our subsequent September 2000 review

Process flow diagrams for the One Stop Permit division follow on pages I–35 to I-36.

San Francisco Department of Building Inspection
One Stop Permit Process Flow
Figure I - 7A


Applicant
Permit Coordinator
Central Permit Processing
Applicant referred to One Stop Permit from the regular counter
Permit coordinator reviews application and supporting documentation
Is application complete?
No
Applicant revises and resubmits a completed application
Yes
B
Pg I-36
Pg I-36
Approved plans are returned for processing
Is permit approval complete?
No
Plans submitted for back check
B
Yes
Offical plans are signed and permit is issued
Process complete

San Francisco Department of Building Inspection
One Stop Permit Process Flow
Figure I - 7B


Permit Coordinator
Planning Department
Fire Department
Health Department
Department of Public Works
Redevelopment Department
Pg I-35
Submitted to plan checkers
Multiple copies of the plan are distributed
Review by DBI plan checkers
Check required?
No
Yes
Review by on-site DBI cross trained permit coordinators
Check required?
No
Yes
Review by on-site fire department plan checker
Check required?
No
Yes
Review by health department plan checker (priority checking)
Check required?
No
Yes
Review by on-site public works department plan checker
Check required?
Yes
Review by relevant department off-sight plan checker
Pg. I-35

Findings and Analysis

Although the division is currently undergoing changes, KPMG has noted the following areas for improvement.

- Permit coordinator training
- Procedures for communicating changes to other plan check divisions

Finding
I-10. Plan check staff lack full confidence in the adequacy of One Stop permit coordinator skills.

Analysis
Focus group feedback indicated the following perceptions of inadequacies in the One Stop process:

- Failure of permit coordinators to request adequate documentation during the screening of incoming plans prior to acceptance and routing to plan reviewers.
- Incomplete or inaccurate transfers by permit coordinators of comments from approved plan copies to final, unified plan sets.

These perceived obstacles detract from the ability of permit coordinators to carry out their assigned function and create the need for additional work by some plan check staff. However, our review found insufficient documentation to substantiate the perceptions of plan check staff members.

Finding
I-11. The current One Stop Permit process does not ensure the re-review of all plan changes that may effect code compliance. This condition could increase the potential for approval of non-compliant construction.

Analysis
The One Stop process was designed to reduce the amount of time required to review plans requiring approvals by multiple City departments by routing copies of plans to each relevant department for 'parallel' review. Plan reviews by multiple departments are normally accomplished sequentially, with the same set of plans passing from one department to the next.

However, focus group comments from plan reviewers indicate that review changes by one department which may effect the review approval of another department have gone overlooked. For example, Health Department requirements for a change to building plans may result in an adjustment that would not receive the approval of the Fire Department. The present process routes all plans with changes made by non-DBI City departments (e.g. Health, Fire, DPW, etc.) back to DBI reviewers for re-review to ensure compliance with structural and architectural requirements, but does not route such plans for re-review by other City departments such as Fire.

Though the One Stop permit coordinator responsible for consolidating all plan copies reviews such plans, the coordinator may lack the training to identify changes made by one City department that may significantly impact plan approval from another. Focus group comments indicate such 'mistakes' may not be identified until the inspection stage, when an inspector familiar with code requirements views the already completed construction in question.

Recommendations

I-7. Request that plan review staff track specific instances of inadequacies in the Permit Coordination process and consider providing additional training to One-Stop Coordinators if staff perceptions are substantiated.

We suggest that the Department take steps to identify areas where the permit coordinator's skills fail to match demands and, if warranted, develop supplemental training to address these. Better trained permit coordinators are more likely to win the confidence of Plan Check division staff, and can play a more valuable role in the parallel plan check process.

I-8. Ensure the re-review of all plan changes that may effect code compliance by other City departments.

To reduce the potential for oversight, the Department should formalize a procedure for communicating plan changes in one City department that may impact plan approvals in another. This could be achieved by establishing:

- Conditions under which department reviewers must communicate required revisions to plans to other reviewing departments; and
- Criteria for Permit Coordinators for the re-routing of approved plan sets received from one City department back to secure a second, priority review from another.

BENCHMARKING

Introduction

As part of its performance audit of the DBI, KPMG employed certain analytical tools to assess the state of current Department operations and identify potential opportunities for improvement. One of the tools utilized was 'benchmarking' through comparative surveys. An overview of our benchmarking methodology and the results of our benchmarking analysis are discussed as outlined below:

- Approach to Benchmarking
- Selection of Functions Benchmarked
- Selection of Comparison Candidates
- Data Collection Activities
- Findings and Gap Analysis
- Additional Observations
- Recommendations

Approach to Benchmarking

Benchmarking involves the collection and use of information from outside organizations to improve operations within your own organization. Information gathered commonly includes performance measures, numerical indicators of the efficiency and effectiveness of an operation; and business practices - those processes and techniques employed to get the work done. Comparative data can assist organizations in identifying low performing functions and potential changes to practices that can improve performance.

Successful benchmarking is more an art than a science but should adhere to certain principles. These include:

- ***Benchmarking those functions most significant to the organization.***
  Significance can be measured by indicators including the proportion of staff involved, cost to the organization and the impact of the function on other operations.

- ***Identifying measures of both efficiency (cost) and effectiveness (service)***
  Efficiency measures indicate how economically resources are used to achieve the organization's product, often measured per unit, e.g., per dollar or per staff member. Effectiveness measures indicate how well the organization is carrying out its functions, often from the user or customer perspective.

- ***Selecting a variety of high-performing organizations for comparison***
  If functions being benchmarked are specific to your industry, other organizations in the same industry are the most useful benchmark targets. For

more generalized functions, such as payroll or personnel, benchmarking organizations in other industries can yield valuable information.

- ***Interpreting data in the context of differing operational environments***
  No two organizations operate under the same conditions and with the same management structures. When comparing performance levels across organizations, different external operating environments rather than different internal structures or procedures within management control may offer explanations for gaps in performance.

Organizations sometimes object to benchmarking because of the danger of unfavorable comparisons with performance levels in other organizations. Performance gaps per se do not necessarily indicate opportunities for improvement in the organization. Performance gaps do indicate areas where explanations should be sought. Such explanations include the occurrence of 'apples to oranges' comparisons, with organizations defining the 'same' indicator differently. Other explanations include the lack of certain procedures or controls that the organization could benefit from.

Selection of Functions Benchmarked

The Department of Building Inspection engages in numerous functions to achieve its mission of safeguarding life and property through the enforcement of City and County building codes and regulations. Each function encompasses different business practices and many are evaluated through specific performance measures. An exhaustive benchmarking effort for all these functions is unlikely to be cost-effective. Rather, those functions most central to the organization's mission should be considered. With this in mind, three performance measures for the following two DBI functions were selected (Table II-1) with the concurrence of DBI leadership for the benchmarking effort:

Table II-1 - Performance Measures by Function

Functional Area	Performance Measure
Plan Review	1. Plan Review Turnaround Time
	2. Inspections per Inspector per Day
Inspections	3. Inspection Responses within 24, 48 Hours

Together these two functional areas employ over half of the Department staff and constitute the primary public 'face' of the organization, and are the most visible to citizens at large. Inspectors and plan checkers interact with the public on a daily basis. As detailed in the accompanying section on performance measures, the Department tracks several measures of efficiency and effectiveness for both these functions.

Selection of Comparison Candidates

In consultation with Department management, KPMG selected 9 jurisdictions as benchmarking targets including 5 from within California and 4 from outside the state. KPMG incorporated management suggestions into the selection of both in-and out-of state jurisdictions, and candidates were finalized for inclusion with management agreement.

KPMG and the DBI leadership selected benchmarking jurisdictions based on a variety of factors. While we considered both population and operational volumes, neither were decisive factors in determining prospective benchmarking peers. Rather, the reputation of the city's building inspection/plan review department and efficiency of the city government in general provided indications as to what cities would yield valuable benchmark/best practice data. Other considerations included proximity, location within California, and the demands for innovation brought on by increased construction growth. Additionally, KPMG researched several supplementary candidates to ensure we obtained the most useful benchmarking best practice information for comparison and/or analysis.

Data Collection Activities

The project team employed a variety of methods to survey, select and gather data from the jurisdictions benchmarked. These included:

Preliminary Survey

- Reviewed national local government associations to identify existing research.
- Examined collected online audit resources including audit records from selected municipalities.
- Researched municipal and department websites to determine existence of recent audits, innovative practices and general department structure.

Candidate Screening

- Developed list of prospective candidates from preliminary survey.
- Solicited DBI input on candidate list.

Data Collection

- Conducted telephone interviews with key management responsible for performance measurement within each department.
- Confirmed accuracy of information gathered through facsimile summaries and additional telephone inquiries as needed.

Tables II-2 and II-3 on the following pages outline key performance data on the jurisdictions selected.

Table II-2 – Key Data on Benchmark Jurisdictions – California

Jurisdiction*	Population	Annual Volumes**	Comments
City of San Diego, CA	1.2 million	▪ 30,000 permits issued ▪ 3740 plans reviewed ▪ 162,327 inspections performed	DBI's Director has recognized the City of San Diego's Planning and Development Review Department for its innovative approaches to customer service.
County of San Diego, CA	1. 5 million	▪ 10,000 permits issued ▪ 1783 plans reviewed ▪ 35,014 inspections performed	Serves all unincorporated county areas including those adjacent to the City of San Diego.
City and County of San Francisco	***790,000***	▪ ***53,000 permits issued*** ▪ ***9000 plans reviewed*** ▪ ***127,000 inspections performed***	***Subject organization.***
City of San Jose, CA	910,900	▪ 41,006 permits issued ▪ 7,927 plans reviewed ▪ 228,101 inspections performed	The San Jose Department of Planning, Building and Code Enforcement maintains a comprehensive performance measurement program, including quality audits.
County of Santa Clara, CA	1.6 million	▪ 28,567 permits issued ▪ 13,037 plans reviewed ▪ 18,209 inspections performed	Serves all unincorporated county areas including those adjacent to the City of San Jose.
City of Sunnyvale, CA	132,900	▪ 4,881 permits issued ▪ 1,191 plans reviewed ▪ 31,977 inspections performed	The City of Sunnyvale utilizes budget-tied performance measures in all of its city departments. In 1994, the Commission on Reinventing Government headed by Vice President Al Gore recognized the City for its performance budgeting efforts.

* Detailed profiles of each of the benchmark jurisdictions surveyed can be found in Appendix C of this report.
** Includes estimated figures for FY 1998/99.

Note: Data for all benchmark cities obtained from survey instrument responses. Data for City and County of San Francisco obtained from the Department of Building Inspection.

Table II-3 – Key Data on Benchmark Jurisdictions – Out of State

Jurisdiction	Population	Annual Volumes*	Comments
City of Las Vegas, NV	452,000	▪ 35,000 permits issued ▪ 6,000 plans reviewed ▪ 350,000 inspections performed	▪ DBI's Director recognized the City of Las Vegas Bureau of Building and Safety for its flexible approach to plan review activities. ▪ The City has adopted several innovations to deal with recent rapid growth.
City of Phoenix, AZ	1.2 million	▪ 27,000 permits issued ▪ 4,000 plans reviewed ▪ 27,000 inspections performed	▪ In 1993, the City of Phoenix was selected as the winner of Germany's Bertelsmann Prize as the best-run city government in the world. The contest assessed customer service, decentralized management, planning and financial controls, employee empowerment and administrative innovation. ▪ The City's Development Services Department is currently implementing a team approach to customize plan reviews of larger projects.
City of Portland, OR	510,000	▪ 49,814 permits issued ▪ 18,278 plans reviewed ▪ 176,290 inspections performed	▪ The Auditor of the City of Portland has a vigorous performance audit program, and lead the design of a performance reporting program for major city functions. ▪ The City's Bureau of Buildings was most recently audited in FY 97/98. The Bureau is currently negotiating arrangements with other City departments to reduce total plan review process times.
City of Seattle, WA (inspections only)	540,000	▪ 25,000 permits issued ▪ 85,000 inspections performed	The City of Seattle relies on manual tracking to monitor the performance of its inspection staff. It is currently engaged in a search to identify an automated system that will incorporate this function.

* Detailed profiles of each of the benchmark jurisdictions surveyed can be found in Appendix C of this report.

** Includes estimated figures for FY 1998/99.

Findings and Gap Analysis

To analyze the data collected, KPMG performed a gap analysis to identify differences between the Department and the jurisdictions surveyed. The gap analysis yielded several pertinent findings relevant to the Department's performance measurement system and to its specific performance target goals. Less useful information was uncovered with respect to the Department's level of performance in key categories.

Results of the benchmarking analysis are discussed below for the inspections and plan review functions with separate assessments of the overall performance measurement system and specific performance measure target goals. While the Department compares favorably to the jurisdictions benchmarked in some areas, opportunities for improvement exist elsewhere. Detailed information on the performance levels of designated peer organizations may be found in Appendix C.

Inspections

Performance Measurement Systems

II-1. Finding
Performance measures used by the Department to track the efficiency and effectiveness of inspection staff compare favorably to those in use in jurisdictions surveyed.

Analysis
The Department utilizes two measures to track inspection staff performance. These are:

- Efficiency Measure
  Inspections per Inspector per Day – a measure of the efficiency of inspection staff in completing assigned inspections

- Effectiveness Measure
  Percentage of Inspection Requests Responded to Within 24 Hours – a measure of the effectiveness of inspection staff in providing customer-responsive inspection services

Of the 9 jurisdictions surveyed, four employ both of the measures noted above. The remaining six jurisdictions use only the effectiveness measure, or some variation, tracking the percentage of inspection response by the next business day or by customer time requested.

All jurisdictions attempt to equalize workloads among inspectors by reviewing job assignments on a daily basis or designating certain staff as 'floaters' able to assist inspectors in districts with a particularly high demand for inspections. Not all, however, measure the 'productivity' of inspectors as a group or at an individual level to identify consistent patterns of low performance as does the City and County of San Francisco.

II-2. Finding

The current system for auditing inspection quality risks subjectivity in audit results. Survey jurisdictions offer some examples of how quality control checks can be structured to decrease the risk of subjectivity.

Analysis

To audit the quality of inspections, the Department's senior inspectors conduct monthly 'ride-alongs' with one of the inspectors reporting to them and file a monthly report with management. Our survey of other jurisdictions found that the best utilize cross checks by senior personnel or peers who do not work together on a daily basis. These checks are designed to assess both the quality of inspections performed and accuracy of data gathered on inspection workloads. The checks also serve to identify areas where staff could benefit from further training or the sharing of knowledge, and reinforce the need for a consistent application of inspection criteria.

Methods used to assess inspection quality or data accuracy include the following:

- Peer reviews of inspections in other inspection districts are conducted at random with a goal of 95% accuracy.
- Supervisors perform random 'ride-alongs' with inspectors and unscheduled reviews of inspections.
- Senior inspectors select five completed inspections per month at random for review of quality and accuracy of paperwork.
- Senior inspectors physically re-enact a given day's inspection routine for each inspector once yearly to assess inspection quality and accuracy of time, mileage and other data recorded.

II-3. Finding

The majority of jurisdictions surveyed utilize performance measures to identify needs for additional training and staffing over the long term, while relying on daily equalization of workloads across inspector districts in the short term. The DBI does not make use of such information to identify technical training requirements of its employees.

Analysis

The majority of jurisdictions surveyed utilize performance measures selectively over the long term. Consistent under-performance is considered an initial indicator that additional training may be necessary for particular inspectors, only after other explanatory factors such as transportation difficulties in the assigned district, have been investigated. In the short term, on a daily and weekly basis, workloads are equalized across inspector districts with the use of 'floater' inspectors without assigned districts or redistribution of inspection assignments.

As discussed in the section on Organizational Analysis, the Department does not appear to have an established system to formulate training priorities. It is also unclear if the inability to meet performance targets over the long term results in the reassessment of staffing needs.

Performance Measure Targets

II-4. Finding

The Department's performance measure targets for inspections lag behind those of other jurisdictions surveyed in the area of response time effectiveness but compare favorably in the area of per inspector efficiency. Only in those jurisdictions employing combination inspectors for residential inspections and including a large number of easy-to-inspect 'tract' housing developments were efficiency targets substantially higher.

Analysis

Department targets for response time effectiveness are lower than jurisdictions surveyed.

- Until recently, the Department maintained a target of 80% of inspections performed within 24 hours of request. Survey jurisdictions maintain targets of 90 – 95% for the same response time period.

- The Department's recently adopted target of 100% of inspections performed within 48 hours is consistent with one survey jurisdiction. However, this jurisdiction maintains a complementary target of 90% of inspections performed within 24 hours.

Several reasons may account for this target measure variation when compared to the most common target measure among the benchmarking jurisdictions. Many of the jurisdictions surveyed noted their use of 24-hour, interactive voice response (IVR) system to expedite the inspection scheduling process. The Department does not utilize such a system and each inspection division employs different scheduling procedures. Additionally, some question remains as to the accuracy of data collection activities supporting the tracking of percentage of inspections performed within the 24 and 48 hour time windows. These issues are discussed further in the section on performance measures.

Department targets for inspector efficiency compare well with those in other jurisdictions although this indicator is highly dependent on geographic, types of construction, and other characteristics unique to each locale. Higher inspector efficiency targets maintained by other jurisdictions applied to inspectors with a high density of residential tract housing in their districts. Rapid, multiple inspections of such housing stock are possible due to the uniform nature of construction. Comparative data on performance measure targets is displayed on the following page (Table II-4).

Table II-4 - Comparisons of Inspection Performance Measure Targets

	California Jurisdictions						**Out of State Jurisdictions**			
Performance Measure	***City & County of San Francisco***	**County of Santa Clara**	**County of San Diego**	**City of San Diego**	**City of San Jose**	**City of Sunnyvale**	**City of Las Vegas, NV**	**City of Seattle, WA**	**City of Portland, OR**	**City of Phoenix, AZ**
Inspections/ Inspector /Day	*11*	NA[1]	8.4	NA	NA	NA	22-23	NA	10 – 16 (per type)	12-18 (per type)
Percentage of Inspections Responses within 24 hours (or As Scheduled)	*80%* *100% w/in 48 hrs*	90%	100%	95%	95% 100% w/in 48 hrs	90%	95%	95%	95%	90%

[1] Jurisdictions not employing this performance measure.

Plan Review

Performance Measurement Systems

II-5. Finding

The Department is consistent with survey jurisdictions in its overall approach to measuring plan review effectiveness and goes beyond the norm in its measurement of plan review staff efficiency.

Analysis

All of the jurisdictions surveyed measured the time required to review plans. The plan type categories established, however, varied widely, as did the target times associated with each category. Plan review times provide a direct measure of what matters to the customer most, and a valuable indicator of the need to reassess work processes, training, and if necessary, staffing levels, to maintain customer service standards. Only one other jurisdiction uses a specific measure of staff efficiency as in San Francisco, and restricts it to internal use for identifying the need for training or a change in plan review technique.

II-6. Finding

While all survey jurisdictions measured plan review times, several found the measurement of initial review time coupled with the number of revisions, rather than overall plan review time, to be a more useful management tool.

Analysis

Plans commonly proceed through two or more rounds of review before final approval. After an initial review, the customer must make revisions to the plans based on the reviewer's comments before the process can proceed. This review, comment, revision, review cycle repeats until the reviewer is satisfied that the plans presented meet requirements for approval. Very few plans are approved without the need for revisions.

Several jurisdictions focus on the time for the initial plan review as the more valuable indicator because it represents that step in the process most subject to the plan reviewer's control. By contrast, the overall plan review time includes those periods in which plans have been returned to the customer for revisions. Overall process times can vary widely depending on the time taken by the customer to complete and resubmit a revised plan set.

An additional (though not explicit) measure used by one jurisdiction is the number of follow-on reviews needed. Management in this jurisdiction believes a thorough initial review can minimize the need for further follow-on reviews. For repeat customers, the initial review can act as a 'training' tool. Consistent rejection of construction practices or features in the initial review can lessen the likelihood that customers will attempt to 'shortcut' code requirements intentionally or through unfamiliarity with procedures.

Performance Measure Targets

II-7. Finding

While comparison of actual target times per plan type across jurisdictions surveyed is difficult due to variations in category definition, the Department's levels for compliance with its own target times are consistent with the norm among peer jurisdictions.

Analysis

Almost all jurisdictions surveyed set their target levels at 90%, attempting to review this percentage of plans within the target times established. San Francisco sets its target levels at 85% for commercial plans and 90% for residential plans. Many others listed target times for plan review but did not establish goals for the percentage of plans to be reviewed within this time. A comparison of target levels in the jurisdictions surveyed (Table II-5) is outlined below.

Table II-5 - Comparisons of Plan Review Performance Measure Targets

	California Jurisdictions						**Out of State Jurisdictions**			
Performance Measure	***City & County of San Francisco***	**County of Santa Clara**	**County of San Diego**	**City of San Diego**	**City of San Jose**	**City of Sunnyvale**	**City of Las Vegas, NV**	**City of Seattle, WA**	**City of Portland, OR**	**City of Phoenix, AZ**
Percentage of Plans Reviewed within Target Time	*85% commercial* *90% residential*	90% 99%	85%	90%	90%	NA[1]	NA	NA	NA	90%

[1] Jurisdictions not employing this performance measure.

Additional Observations

In addition to our review of performance measure systems and targets, KPMG asked each jurisdiction about select business practices used throughout the plan review and inspection process. Our research yielded several responses involving both long-time practices by the departments surveyed as well as innovative new approaches still in the trial stage. Many of the practices listed contribute to the quantitative benchmarking results noted above and suggest potential innovations for examination by the City and County of San Francisco.

Inspections

II-8. Finding
Almost all survey jurisdictions utilize combination inspectors for at least some inspection duties. Only one jurisdiction follows the Department's practice of employing separate inspection staffs by inspection type for all inspections.

Analysis
Combination inspectors hold multiple certifications allowing them to conduct structural, electrical, mechanical and plumbing inspections at the same time on a construction site. The advantages of combination inspection are especially useful when inspection sites are separated by long distances as travel times can be minimized. Less complex residential construction is the most common candidate for combination inspections. Utilizing combination inspectors for commercial construction is less common due to both the difficulty of retaining experienced and qualified staff, and the complexity of construction techniques used in many larger commercial projects. The use of combination inspection in the survey jurisdictions (Table II-6) is summarized below.

Table II-6 – Usage of Combination Inspectors

Jurisdiction	**Combination Inspector Usage**
California Jurisdictions	
San Diego	1 – 2 family residential construction
County of San Diego	All construction
County of Santa Clara	All construction
Sunnyvale	All construction
Out of State Jurisdictions	
Las Vegas, NV	All construction
Phoenix, AZ	All construction
Portland, OR	All construction except major commercial

II-9. Finding
Several survey jurisdictions have adopted innovative programs to better serve inspection customers. Some of these programs may offer guidance for the Department in its on-going efforts to enhance customer service.

Analysis
Increased customer service can often be achieved by 'customizing' services for certain customer groups. The Department has already introduced some 'special' services including the One Stop Permit program and a recent Express Window for certain permits. In considering such efforts, an organization must also assess the effect providing such 'special' services will have on general operations, and by extension, service to customers as a whole.

Excessive attention to the demands of specific customers can not only detract from overall customer service, it may encourage unreasonable customer expectations. The experiences of other jurisdictions in offering specialty services while maintaining general standards can provide valuable assistance. Two such specialty services for the inspection function are noted below.

Permit by Inspection – This City of Phoenix, Arizona program allows inspectors to issue permits for simple construction work out in the field after an on-site inspection. In exchange for convenience, the builder must bear the risk that already finished work may not meet code standards.

Master Permits and Accelerated Permits -- These two programs instituted by the City of Indianapolis, Indiana target specific customer groups. A *Master permit* may be issued to a contractor that consolidates the number of inspections and permits required. If the developer is using the same contractors throughout the entire project or most of it, the contractors may qualify for a Master permit. *Accelerated permits* can be requested for emergency or time sensitive projects. The permit guarantees the performance of necessary inspections within 2 hours of phone notification. An additional fee is charged. (Note: Although the City of Indianapolis was not one of our final benchmark jurisdictions due to insufficient information, we have included this brief description on two of its more innovative programs.)

Plan Review

II-10. Finding

Several survey jurisdictions have adopted innovative programs to streamline the plan review function. Some of these programs may offer alternatives to the Department in its on-going efforts to enhance customer service.

Analysis
Inter-Department Agreements on Average Turnaround Times - Management initiatives in Portland, Oregon include a current review of the permit approval time per department. This review would seek to determine the average time needed by each department for its review of permit applications, including planning, public works and other city departments as well as the Bureau of Buildings. The Bureau is negotiating agreements with each city department involved in plan review specifying customer

service and other goals. These agreements will eventually be expanded to include approval time targets for each department involved.

Team Approach to Plan Review - For major projects, Phoenix, Arizona has initiated a team approach to plan review. Project review teams include representatives from planning, civil engineering, building safety and field inspections, and are supported by a clerical staff member and a Technical Research group. A Project Manager coordinates teamwork and serves as a single point of contact. Managers, drawn from experienced staff, are expected to customize the plan review approach and schedules taking advantage of project characteristics that may allow a more flexible review process while still adhering to city policy. A written agreement including timelines, estimated fees and submittal requirements is made with the developer's team.

Express Customized Plan Review - Las Vegas, Nevada provides developers with the opportunity to ensure compliance with all applicable construction codes in a single meeting through its Express Plan Review program. By appointment, members of the developer's team meet jointly with a team of plan review professionals (including planning, land development and fire plan reviewers in addition to plumbing/mechanical, electrical and structural reviewers) to resolve all compliance issues. The meeting continues until all issues are resolved, or necessary revisions are found which cannot be accomplished within the meeting format. Those using the Express Plan Review system are required to have any planning, zoning approvals before making appointments, and must submit a complete set of plans at least two weeks in advance.

Recommendations

Inspections

II-1. Consider modifying the current system for auditing the quality of inspections to minimize the review of inspectors work by directly supervising superiors.

As detailed in the finding above, survey jurisdictions offer several examples of how quality control checks can be implemented utilizing cross-section or peer reviews that minimize the potential for subjective assessments when reviewing direct reports.

II-2. Assess the potential for efficiency gains by utilizing combination inspectors to inspect certain types of construction, and convert a limited number of inspectors to combination duty if warranted.

Most jurisdictions surveyed use combination inspectors for at least some of their inspections, especially of residential construction. Limited usage of combination inspectors can yield time and travel efficiencies.

II-3. Revisit the use and the ability to achieve 24-hour turnaround target times (rather than 48-hour) after reforms utilizing new technologies are made to inspection scheduling practices and performance measure data collection procedures.

Almost all the jurisdictions surveyed used 24-hour turnaround target times. While circumstances of City and County geography and transportation external to the Department may warrant the recently introduced 48-hour target, efficiency gains from internal reforms including technologies and more accurate use of performance measures have yet to be explored.

Plan Review

II-4. Establish target times for initial plan reviews and measure the number of plan revisions to better assess and control reviewer vs. customer contributions to total plan review time.

Current performance measures track the overall permit processing time including the time plans are 'on hold' as the Department waits for plan revisions to be submitted by the customer. Initial plan review time (along with 'backlog' time as noted in the section on performance measures) is a more accurate measure of that part of the process over which the Department has control and can strive to minimize.

II-5. Assess the potential for establishing agreements specifying plan review target times and other customer service goals with other city departments to shorten and increase the predictability of total plan review times.

Overall plan review time includes that required by city departments other than the DBI. Established time frames for the review of plans by other departments would allow the DBI to provide estimates of total plan check time with greater accuracy. In the future, consider expanding such interdepartmental cooperation to allow for combined plan review teams from the relevant city departments similar to those in other jurisdictions surveyed.

Comparative Performance Assessment

Introduction

Data gathering for our initial benchmarking survey provided comparative information on the functions most central to the DBI's mission – that is, inspections and plan review. To develop a more comprehensive picture of the Department's performance in comparison with that of high-performing peers, KPMG conducted a supplemental survey soliciting information on performance measures and best practices of three select municipalities. From this information, KPMG developed a comparative scorecard assessing CCSF performance with respect to its peers on per measure or practice basis. This scorecard provided the basis for our assessment of the Department's comparative performance. We discuss our approach and analysis as outlined below:

- Selection of Supplemental Benchmarking Candidates
- Comparative Scorecard of Performance Measures and Best Practices
- Assessment of Comparative Performance

Selection of Supplemental Benchmarking Candidates

The following three jurisdictions were chosen as targets of KPMG's supplemental benchmarking survey for the CCSF DBI performance audit. Each jurisdiction has received recognition for its commitment to excellence in government, and in some cases, has recently implemented performance improvement reforms in its building plan review and inspection operations. The table below lists the jurisdictions and reasons for their selection as entities with superior operational performance and practices.

Table II-7 - Target Jurisdictions for Supplemental Benchmarking Survey

Jurisdiction	Population	Recognition for Superior Performance and Practices
City of Phoenix, AZ	1.2 million	▪ In 1993, the City of Phoenix was selected as the winner of Germany's Bertelsmann Prize as the best-run city government in the world. The contest assessed customer service, decentralized management, planning and financial controls, employee empowerment and administrative innovation. ▪ The City's Development Services Department is currently implementing a team approach for its plan review function.
City of Portland, OR	510,000	▪ The Audit Services Division of the City of Portland has been a winner or finalist for the Knighton Award for Best Audit from 1995 to 1998. This award is presented annually by NALGA (National Association of Local Government Auditors) in recognition of excellence in government auditing. The Division lead the design of a performance reporting program for major city functions. ▪ The City's Bureau of Buildings was most recently audited in FY 1997-98. The Bureau is currently implementing its 'Blueprint 2000' process improvement effort including the introduction of new permit processing software.

Table II-7 - Target Jurisdictions for Supplemental Benchmarking Survey (cont.)

Jurisdiction	Population	Recognition for Superior Performance and Practices
City of Indianapolis, IN	1.4 million	▪ Under the leadership of former Mayor Steven Goldsmith, municipal government operations throughout the City of Indianapolis were subject to comprehensive operational improvement reforms. KPMG professionals participated extensively in this effort. ▪ The Indianapolis Department of Metropolitan Development, like other city departments, employs technology strategically allowing a high degree of Internet, phone and facsimile access to its services.

Comparative Scorecard of Performance Measures and Best Practices

KPMG selected seven performance measures and seven best practice indicators to develop a 'scorecard' of the DBI's performance in comparison to the selected municipalities. The seven measures and practices address the plan review, permit processing, inspections and code enforcement functions--assessing dimensions of efficiency, effectiveness and customer service quality. Scorecard results and data are presented in summary form on the following page. (For an extended version of our survey results, including descriptions of innovative practices, see Supplemental Appendix D.)

Table II – 8 - Comparative Scorecard
CCSF Comparative Performance Against Select Jurisdictions

Performance Measures	**Jurisdiction**				
	Indianapolis, Indiana	**Phoenix, Arizona**	**Portland, Oregon**	**CCSF DBI**	**Comparative Performance**
Plan Review					
• Percentage of Plans Reviewed and Approved Over the Counter	NA Includes State function	15%	85% average	85%	**High –** Compares favorably
• Percentage of Residential Plans Reviewed and Approved Within 15 Days	99%	75%	95% estimate	85 + % DBI tracks plan reviews and approvals within 7 and 30 days. 85% - 7 days 92% - 30 days.	**Medium -** compares satisfactorily
• Percentage of Commercial Plans Reviewed and Approved Within 30 Days	NA State function	80%	60% estimate	87%	**High -** compares favorably

Table II – 8 - Comparative Scorecard
CCSF Comparative Performance Against Select Jurisdictions (continued)

Performance Measures	Jurisdiction				
	Indianapolis, Indiana	**Phoenix, Arizona**	**Portland, Oregon**	**CCSF DBI**	**Comparative Performance**
Permit Processing					
• Number of Permit Processing Staff	14 Does not include supervisory staff.	8 Does not include supervisory staff.	23 Does not include supervisory staff.	20 Does not include supervisory staff.	**High -** compares favorably Permit per Staff Basis Indianapolis – 2860 Phoenix – 6227* Portland – 1856 CCSF – 2650 *Note that over-the counter approval rates for Phoenix are sharply lower than rates of other jurisdictions.
• Number of Permits Processed Annually	40,036	49,814	42,700	53,000	**NA**
Inspections by Request					
▪ Percentage of Inspections Requests Responded to Within 24 Hours	99%	95%	98% commercial 95% residential	80%	**Low -** Compares unfavorably

Table II – 8 - Comparative Scorecard
CCSF Comparative Performance Against Select Jurisdictions (continued)

Performance Measures	**Jurisdiction**				
	Indianapolis, Indiana	**Phoenix, Arizona**	**Portland, Oregon**	**CCSF DBI**	**Comparative Performance**
Code Enforcement					
• Percentage of Code Violations Resolved Without Court Proceedings	99%	99%	99%	99%	**High -** Compares favorably
Best Practices					
Plan Review					
• Does your jurisdiction offer an express plan review service?	NA Includes State function	Yes	None except overtime.	Yes, in part.	**Medium -** compares satisfactorily
• Does your jurisdiction track its responsiveness to technical code interpretation inquiries?	Yes informally No formal tracking.	Yes informally No formal tracking.	No	No	**Medium -** compares satisfactorily
Permit Processing					
• Does your jurisdiction offer an express permitting window?	Yes	No	No	Yes	**High -** compares favorably

Table II – 8 - Comparative Scorecard
CCSF Comparative Performance Against Select Jurisdictions (continued)

Best Practices	**Jurisdiction**				
	Indianapolis, Indiana	**Phoenix, Arizona**	**Portland, Oregon**	**CCSF DBI**	**Comparative Performance**
Permit Processing					
• Does your jurisdiction offer a single point of contact for permit applications requiring review by multiple departments?	Yes	Yes	Yes	Yes	**High -** compares favorably
Inspections by Request					
• Does your jurisdiction receive inspection requests on a 24-hour basis?	Yes	No, 14 hour availability.	Yes	No	**Low –** compares unfavorably
• Does your jurisdiction have an automated system for scheduling inspection appointments, e.g. IVR?	Yes	Yes	No	No	**Low –** compares unfavorably

Table II – 8 - Comparative Scorecard
CCSF Comparative Performance Against Select Jurisdictions (continued)

Best Practices	**Jurisdiction**				
	Indianapolis, Indiana	**Phoenix, Arizona**	**Portland, Oregon**	**CCSF DBI**	**Comparative Performance**
Code Enforcement					
• Once a code violation has been identified, what steps does your jurisdiction take to enforce compliance before pursuing court proceedings?	-Issue a Notice of Violation -Allow 15 days to correct or challenge. -Occasionally, an extension is granted. - Refer to court proceedings	-Issue an inspector's notice. -Post letter to violating contractor. -Issue a Notice of Violation. -Issue a civil citation. -Refer to court proceedings	-Issue a notice of violation -Refer to Code Compliance section. -Code Compliance issues a second notification or files a citation for a Code Hearing. -Code Hearings Officer may allow more time, dismiss the case, order compliance or impose civil penalties. - Refer to court proceedings	-Notice of violation issued -Second notice of violation issued. -Case is referred to a Director's Hearing -A hearing is held and the case is dismissed, an abatement order issued or more time allowed. (45% of Director's Hearing cases result in orders of abatement.) -Refer to the Abatement Appeals Board. -Refer to Commission for review. -Refer to City Attorney for court proceedings.	**Medium -** Compares satisfactorily

PERFORMANCE MEASURES

Overview

As part of our performance audit of the Department of Building Inspection, KPMG reviewed measures of performance now used by the Department. As noted in the section on benchmarking, these measures are used for internal management purposes. This section discusses the DBI's performance measure system as outlined below:

- Approach to Performance Measurement
- Data Collection Activities
- Findings and Analysis
- Recommendations

Approach to Performance Measurement

Performance measurement is not simply concerned with collecting data. It is better thought of as an overall management system with the goal of increasing the efficiency and effectiveness of the process or the product. These actions operate in a continuous cycle allowing options for expansion and improvement of the work process or product as better techniques are discovered and implemented. Without performance measures an organization has no way of knowing how well it is performing, whether or not it is efficient or how to improve its processes which ultimately define the nature of its business.

Performance measures quantitatively tell the organization something important about its products, services and the processes that produce them. They are a tool to understand, manage and improve what the organization does. If an organization does not measure an activity, it cannot control it. If it cannot control it, it cannot manage it. Performance measures let the organization know:

- How well it is doing;
- If it is meeting its goals;
- If the customers are satisfied;
- If the processes are in statistical control, and
- If and where improvements are necessary.

To be of value, performance measures should be:

- Representative of actual efficiency and effectiveness;
- Linked to an established goal or target level;
- Accurate and based on consistent data collection and computation, and
- Employed by management to identify problem areas and planned corrective action.

The absence of one of these elements can jeopardize the benefits of performance measurement system, transforming a robust system of measurement and improvement into an empty exercise in data collection.

Data Collection Activities

To assess the extent to which the Department's performance measurement system satisfies the conditions for a robust system, we conducted several activities. These included:

Interviews
The project team conducted individual and focus group interviews with

- Deputy Directors, Division Managers, Chief Building Inspectors and Senior Inspectors responsible for monitoring performance measures;
- Department Customer Service Manager responsible for the compiling quarterly data submitted by managers on performance measure achievement, and assessing its consistency with data generated from information systems;
- Administrative and clerical staff responsible for data input and calculation, and
- Operational staff responsible for providing initial data input.

Review of Documentation
KPMG gathered and analyzed documentation from all levels of the performance measurement process including:

- Quarterly management reports used to prepare the Department's Quarterly and Annual Reports;
- Weekly management reports from plan check and inspections operations;
- Routine and customized Permit Tracking Information System (PTIS) computer-generated summaries tracking process times for key Department operations, and
- Samples of clerical logs for collecting initial data for monthly compilation.

Observation of Data Collection, Computation
KPMG observed data input activities and procedures including data calculations performed by administrative support staff in both Inspections and Plan Check divisions.

Analysis of PTIS Reports
KPMG conducted an extensive analysis of Permit Tracking Information System (PTIS) reports from both the legacy Motorola and the Oracle systems to:

- Estimate average review and 'backlog' or wait times for each step of the plan check process including by separate departments, and
- Evaluate the reliability and usability of reporting formats.

Survey of Management
A survey questionnaire was administered soliciting management perceptions of the value and fairness of current performance targets and usage.

Findings and Analysis

This section discusses our findings regarding the three major aspects of a functioning performance measure system. They are:

- Performance Measures – the actual measures or ratios chosen to provide information on the efficiency and effectiveness of the organization.
- Data Collection and Computation – the procedures and practices used to collect raw data and calculate the performance measure ratios on a periodic basis.
- Management Utilization – how management utilizes performance measurement system results to make decisions about operations.

Performance Measures

Finding
III-1. The Department utilizes a comprehensive set of performance measures and targets to gauge productivity and customer service levels in key functions.

Analysis
The Department's "Management by Objective" program outlines performance measures and target levels for most functions including the inspections and plan review activities most central to the organization's mission. Performance measures are classified below (Table III-1) by function and organizational objective.

Table III-1 — Performance Measures by Organizational Objective and Function

Organizational Objective	Function	Performance Measure
Efficiency (Productivity)		
	Inspections (Building, Electrical and Plumbing)*	■ Inspections per Inspector per Day
	Plan Review (Commercial, Residential and Mechanical)	■ Plans Reviewed per Reviewer per Day
Effectiveness (Customer Service)		
	Plan Review (Commercial, Residential and Mechanical)	■ Percentage of Permits Approved within 24 Hours, 7, 30 or 90 Days
	Inspections (Building, Electrical and Plumbing)	■ Percentage of Inspection Responses within 48 Hours
	Lead Hazard Inspection	■ Percentage of Inspection Responses within 48 Hours
	Records Management	■ Percentage of Record Requests Processed within 24 Hours ■ Percentage of 3R Reports Processed within 2 Days
Effectiveness (Quality)		
		No explicit measures

*The Housing Inspection division does not have any explicit efficiency performance targets due to the varied nature of complaint inspection work. Actual average inspections per Housing division inspector per day are 4.5.

Note: In addition to these performance measures, the Department also gathers numerous data on aggregate volumes not listed above. Volume data reflects fluctuations in activity but does not provide information on operational performance and is not included in our review. True performance measures are unit based often on a per-dollar or per-time period basis.

Finding

III-2. Performance measures for the two key functions of plan checking and inspections are well developed in the areas of productivity and customer service but do not include explicit measures of work quality.

Analysis

The speed with which the Department reviews plans or responds to inspection requests plays a large part in influencing the customer's perception of the quality of DBI services.

Performance measures, in the form of permit approval times and inspection response times, are in place to measure this aspect of quality. However, the quality of plan check or inspection work is not measured on an explicit basis.

In the area of plan check, the Department has taken a step in this direction by instituting a quality control check for all plans. This check consists of an examination of approved plans for the appropriate signatures, stamps and other markings ensuring proper review by all relevant parties. This check is performed by One Stop permit coordinators and permit clerks. While important, the focus of the quality control check is on procedural completeness rather than the substance of the plan review itself. In the area of inspections, no explicit quality measure is apparent.

As noted in the section on benchmarking, other jurisdictions have adopted various approaches to ensure work quality through random checks of inspector or plan reviewer products by either peers or immediate supervisors. Such checks are limited to avoid increasing day-to-day workloads. Still, they provide a good opportunity to identify lapses in work and potential areas for additional training for all staff.

Data Collection and Computation

Data collection and computation forms the foundation of a useable performance measurement system. This includes:

- Data entry by administrative and professional staff;
- Data compilation on weekly, monthly or other scheduled basis by administrative staff; and
- Data computation by administrative or management staff.

To the extent inaccuracies and omissions exist in any one of these steps, the resulting performance measures will not truly reflect the organization's actual operations, despite the validity of the measures themselves. Often, due to their routine nature, the accuracy and efficiency of data collection and computation tasks do not receive the attention of senior management.

Inspections

Finding
III-3. Several practices continue to be used in data gathering and compilation for the inspection function that limit the accuracy and reliability of performance measurement data. Specifically:

- ***No consistent definition of what constitutes an inspection exists.***

Analysis
Clerical staff in all inspection divisions compile total inspection counts based on inspectors' daily logs in which inspections are listed by site or inspection type. These

inspection totals are self-reported and different inspectors may provide different inspection counts for identical activities. While the Department's Oracle database system counts inspections by inspection type and has been introduced in one inspection division, inspection totals from manual logs are still in use. Our September 2000 review confirmed the continuation of this condition. KPMG's 1999 review compared the monthly inspection count for this same division recorded in the Oracle system (5000) to that produced from a tabulation of daily logs for the same month (4618) and noted a disparity of approximately 9%.

- ***No automated check exists to confirm the accuracy of inspection response times.***

Analysis
In both our 1999 and 2000 reviews, we found that inspection response times are tabulated from daily log entries by inspectors. Inspectors self-report the number of inspections responded to within 24 or 48 hours (or as requested) on each daily log sheet. At month end, these figures are totaled by clerical staff and reported to management for incorporation in performance measure totals. No automated check exists to confirm the accuracy of these figures. These inaccuracies may occur due to:

- The lack of a uniform definition of an inspection, as noted above, and
- Inaccurate calculation of response time totals.

Only the Building Inspection Division maintains an automated record of inspection requests. Clerical staff answering customer requests for inspections enter the time the request was made into the Oracle system. This input is used to produce daily inspection schedules for each inspector but not to calculate inspection response times. In the Plumbing and Electrical Divisions, the legacy Oracle system is in use but paper logs provide the only record available for performance measurement data.

- ***Data input and computation are time consuming, manually intensive, and require frequent transfers of data that increase the potential for error.***

Analysis
Each inspection division performs its calculation of performance measures using manually intensive processes subject to human error. Use of the Oracle 2000 system to automate calculation of performance measures has not yet been implemented.

- **Building Inspections** - Clerical staff enter each inspector's daily inspection records into both the Oracle system and an Excel spreadsheet application (a duplication of the data entry process). The Excel spreadsheet application is used to compute the number and percentage of inspections responded to within 24 and 48-hour periods. However, the Building Inspection division has the most automated data collection and computation procedures of the three inspection divisions.

- **Electrical Inspections** - The current process for gathering and reporting monthly performance measures involves numerous steps and several transfers of data. These include:

  1. Calculation of inspectors' daily productivity;
  2. Calculation of total inspections from daily logs;
  3. Transfer of results to 14-column accounting paper, and
  4. Additional calculations of permits approved, active permits, inspections performed within 24 hours, total inspector days, and average inspections per inspector per day.

  These activities occupy four hours of clerical staff time daily.

- **Plumbing Inspections** – Processes used are similar to those in Electrical Inspections, manually intensive and requiring frequent transfers of data. They include:

  1. Calculation of per inspector data daily from daily inspection logs;
  2. Transfer of all individual inspector data to a daily summary form;
  3. Tallying of all of individual daily summaries monthly to create summary, and
  4. Submission of this summary to a supervisor who transfers the numbers to a final inspection report.

- **Housing Inspections** – The Housing Inspection division relies on the Oracle system and is highly automated. As noted previously, it does not use an explicit performance measure.

Plan Check -- Permit Tracking Information System

Since our 1999 review, the Department has migrated from the legacy Motorola information system to an Oracle-based system. The Oracle 2000 system draws on much of the same information and report formats utilized in the previous Motorola system. Although the Permit Tracking System or PTS is designed to track the progress of a permit from the initial filing of the application to issuance, it is the plans attached to the permit application that must be approved before a permit is issued and construction can begin. This plan check and approval process occupies the majority of the time required to process a permit. The following assessment of PTS issues focuses on the plan check process.

III-4. Finding
Data input practices and estimates used for the plan check performance measures limit the reliability and utility of the data. Specifically:

- ***Inconsistent data entry tracking the progress of plans reviewed limits staff ability to accurately determine the status of plans within the process and the reliability of such information for management decision making.***

Analysis
To determine the location of plans in the plan check process, customer service representatives, operational staff and others must interpret online data listing the dates tracking the plan progress. Inaccuracies or omissions in the entry of these dates will prevent an accurate interpretation.

In our 1999 review, KPMG noted errors in plan check hours, log-in and log-out dates, and hold times associated with permit applications in both one and three-month samples of recent plan check tracking data. Both MIS and plan check professionals confirmed the potential errors due to inconsistent data entry practices. Specifically, errors noted included:

- **Missing 'hold out' dates** in three of four randomly selected sample applications, and
- **Extremely lengthy 'hold' days** for numerous permit applications. MIS staff assisted in identifying two possible explanations for these conditions.
  - Incorrect recording of log-in and log-out times
  - Improper routing of plans increasing aggregate hold times

In our 2000 review, we examined a sample of 20 permit applications tracked through the One Stop permitting process. The One Stop process assigns a single Permit Coordinator to track the progress of a permit using its own paper filing system. We compared these to routing dates recorded in Oracle PTS system for consistency. We found the following:

- PTS routing dates for 30% of the applications were inconsistent with those recorded in corresponding One Stop files, or reflected End dates that were earlier than Start dates for certain permit processing stages.
- PTS routing dates for 35% of the applications reflected minor inconsistencies (1-2 day discrepancies) with those recorded in the corresponding One Stop files.
- PTS routing dates for the remaining 35% of the applications were consistent with those recorded in the corresponding One Stop files.

- ***Methods in use to compute time spent in 'bottlenecks' in the plan check process do not provide an accurate picture of their actual length.***

Analysis
The Department compiles a number of internal statistics on a weekly, monthly and quarterly basis involving the plan check function. One of the statistics recorded is the number of 'backlog' days or the number of days a set of plans must wait before a plan check professional is able to review it. (Plans are reviewed in order of submission.) The following statistics are gathered on a weekly basis:

- Number of Plans Pending for Review;
- Average Plans Reviewed Per Person/Day;
- Average Plan Checker Available per Day, and
- Backlog Days.

In our 1999 review, KPMG found instances where figures submitted for some of these indicators were based, in some cases, on estimates or targets rather than actual figures achieved. These figures are then used to compute the number of backlog days, a key indicator of the duration of the 'bottleneck' in the system. Estimates and targets are used in computation, in part, because data available from the system is unreliable.

Motorola system inaccuracies observed by KPMG included:

- Plans pending information dating back to 1997 for a former Department employee, and
- Different system responses to identical queries submitted less than 10 minutes apart. (It appears the system does not list all of pending plans but provides only partial data for each plan checker.)

We were not able to review the calculation of backlog days during our September 2000 review but found that supporting data was unavailable due to unresolved data classification issues resulting from the migration to the Oracle 2000 system. (These data classification issues delayed Department publication of key performance indicators featured in quarterly and annual reports.)

Management Utilization

Inspections

III-4. Finding
While survey responses from managers in the inspection divisions indicated overall satisfaction with the current performance measurement system, actual use of performance measures as a management tool varies among them.

Analysis
Along with their peers in the plan check function, managers in the inspections divisions expressed positive opinions on the performance measurement system and the actual performance goals set by the Department. Indications exist, however, that inspection response times (a key measure) are not considered an important tool by managers. Inspection response times do not drive their decision-making on the need to supplement staff or adjust workloads.

Instead, complaints, weekly staff meetings, and requests for workload distribution are used as proxies for this measure and ability of inspection staff to maintain it. This may be due to management concerns about data reliability and perceptions that the variety of inspection activities make a strict application of performance measure targets impractical.

Plan Check – Permit Tracking Information System

III-5. Finding
Current system reporting does not accurately reflect the current organization nor include a sufficient level of detail required to provide a relevant display of data. Present plans for the transfer from the legacy Motorola to the new Oracle system do not appear to include such revisions to report format and content. Specifically:

- ***Automated reporting reflects the former internal structure of the Department as part of the Department of Public Works and has not been updated to reflect the current organization.***

  Analysis
  System-generated reports reflecting the number of plans processed and average length of plan processing reflect two plan check divisions—counter and plans approval—rather than the residential, commercial, major project, mechanical and counter that exist today. Management does not have access to organized system data reflecting their specific divisions and relies on information generated in part from estimates and targets as noted above.

- ***Current report formats do not provide sufficient detail on the plan check process to allow management to evaluate division-specific 'bottlenecks' and to assist customer service staff in interpreting plan status.***

  Analysis
  Department staff members use an on-line plan check history to identify the status of plans within the plan check process. This history records the beginning and end dates of several stages within the plan check process. However, in the latter stages of the review process, it is unclear whether plans are 'backlogged,' being reviewed, or have been returned to customers for revision. As discussed further in the section on Organizational Analysis, customer service staff must frequently refer customer inquiries to the plan checker assigned when sufficient detail is not

available on-line. Comments from management indicate that daily logs, rather than system reporting, are the preferred information source when trying to track plan activity in a plan check division.

Recommendations

Performance Measures

Inspections

III-1. The Department should incorporate a quality measure based on limited random sampling into its performance measurement system for the two key operations of plan check and inspections.
The Department's current performance measurement system has adequate measures of productivity and customer service, but lacks an explicit measure of quality. Integrating a measure of quality into the measurement overall system provides a more complete assessment of performance.

Plan Check – Permit Tracking Information System

III-2. To aid management in assessing plan check performance, the Department should consider internal use of three performance measures--the number of 'backlog' days, the time for initial plan review and the number of plan revisions.

The current effectiveness or customer service oriented performance measure used by the Department is permit processing time. This measure includes but does not isolate the plan check review process, or these components of the process over which the Department has the most control. By using 'backlog' days and the other suggested measures internally, the Department will be able to more accurately assess and streamline these steps in the process.

Data Collection and Computation

Inspections

III-3. The Department should develop a uniform definition of what constitutes an inspection to be used by all inspectors to increase the usefulness of the average inspections per inspector per day performance measure.

Varying definitions of what constitutes an inspection among inspectors, combined with reliance on self-reporting, limit the usefulness of the reported levels of this productivity performance measure. This measure can help gauge individual productivity when factors such as inspection complexity and district transportation difficulties are also considered.

III-4. In conjunction with the MIS Division, the Inspections function should consider utilizing the Oracle system to automate the calculation of inspection response times.

Manually intensive processes for collecting and computing performance data, combined with the lack of an automated check, limit the usefulness of measures and consume valuable clerical time. Automation would help address both these issues.

Plan Check – Permit Tracking Information System

III-5. The department should take steps to ensure the integrity of data collection by emphasizing the importance of accurate entry of log in/log out dates by all staff.

The evaluation of plan check process times and identification of areas for improvement will continue to be difficult without more accurate and consistent entries of log in/log out dates at each step of the plan check process. Sound data collection is essential to a meaningful performance measurement program.

III-6. In conjunction with the MIS Division and management, work to revise data tracking and calculation procedures for 'backlog days' and other key performance indicators in new Oracle system.

Currently, plan check managers utilize their own manual tracking of internal performance indicators because available system reporting is either unreliable or too difficult to interpret. Along with more consistent data entry, reforms to system reporting are key to producing more reliable and usable performance indicators.

Management Utilization

Inspections

III-7. Inspection management should re-evaluate the potential for more active use of performance measures after addressing data collection and computation issues.
Current use of performance measures for management decision-making is limited because of concerns about data reliability and fairness in application. As these concerns are addressed, managers should move to make greater use of performance measures as a management tool.

Plan Check – Permit Tracking Information System

III-8. The Department should review system reporting formats in an effort to provide clearer and more detailed data on plan check status for customer service staff, and more relevant data to assist managers in accurately assessing plan check 'bottlenecks.'

Current display screens do not always provide adequate information for Customer Service staff to respond to the most frequent customer inquiries. As discussed in the section on Organizational Analysis, report screens (along with the data entry and computations to support these) should allow Customer Service staff to respond directly to these inquiries, without the need to contact Plan Check professionals. As noted previously, current system reporting on plan check status is also of limited use to management.

The type of data currently entered in daily paper logs may be adequate for these purposes with minor modifications, e.g. provision of 'time with customer' fields, comment codes explaining delays, and estimates of expected time till completion.

Organizational Analysis

Overview

At the heart of any service organization are its people. Management structures and personnel resources combine to either facilitate or impede the efficient and effective execution of an organization's mission. Our approach combines an organization-wide assessment at a high-level with more targeted analysis specific to those functions that present the most pressing issues. The span of control and management structure analysis presents a comprehensive survey from the perspective of the entire organization. Our more targeted analysis is presented in the discussions of staff training and employee utilization. These issue areas are further outlined below.

Issues Areas:
- Span of Control and Management Structures
- Staff Training and Accountability
- Employee Utilization
  - Customer Service
  - Code Interpretation

For each issue area we present and discuss:
- Approach and Activities
- Observations and Findings
- Recommendations

Span of Control and Management Structures

KPMG performed a span of control analysis of the various organizational structures of the CCSF Department of Building Inspection over the past three year period. This analysis reviewed the managerial spans of control from the Director level (Level One) through the senior inspector/senior permit clerk level (Level Four). This portion of the report contains an explanation of our approach, our general observations by management level, a discussion of our pertinent findings, and our associated recommendations. Specifically, this section is organized as follows:

- Approach and Activities
- Observations
  - Level One Management – Director
  - Level Two Management – Deputy Directors
  - Level Three Management – Division Managers
  - Level Four –Seniors
- Findings
- Recommendation

Approach and Activities

KPMG employs the span of control diagnostic technique to assist us in gaining a thorough understanding of reporting relationships and management breadth in the target organization. In simple terms the span of control analysis graphically depicts the range of numbers of direct reports at varying levels in the organization. However, when combined with other pertinent information such as the knowledge gained through our personal interviews and focus group activities, this analytical tool can provide true perspective regarding an organization's potential to become a more balanced and cost effective entity.

Our span of control analysis therefore considers many factors other than the mere number of personnel directly reporting to a supervisor, such as; the similarity of department missions; geographic contiguity of people; the complexity of their job functions; the direction, control, planning and coordination required to fulfill the organizational purpose. In the sections below, KPMG outlines the current span of control in the 4 supervisory levels found in the DBI's current organization. We cite trends and significant changes where relevant when reviewing the DBI's current structure. In the final section, we offer some recommendations resulting from this analysis for further consideration by the DBI leadership.

In the course of this analysis KPMG used the three most recent DBI organizational charts dated April 1999, September 1998, and December 1996 as well as background information learned during Phase Two fieldwork. The ratios reflected in the figures in this section account for all designated job positions including those labeled as vacant in the organizational documentation.

Observations: Level One Management – Director

The DBI Director currently directly supervises three positions; the Deputy Directors of Administration and Operations and a Special Assistant. (The Special Assistant serves as the DBI's principal customer outreach representative.) The Director's direct supervisory responsibilities have varied over the period of analysis from a high of six in September of 1998 to the low of three at present (Figure IV-1).

In the course of our fieldwork the Director indicated that between September of 1998 and the latest reorganization in April of this year, he was particularly concerned about the Administrative and Personnel Services sections of the Department. He has since made some changes in the leadership and composition of these divisions and recently delegated supervisory responsibility to his Deputy Director for Administration. At present, the Director's special emphasis area is with the Customer Service and Community Outreach efforts and therefore he maintains closer personal control of these activities.

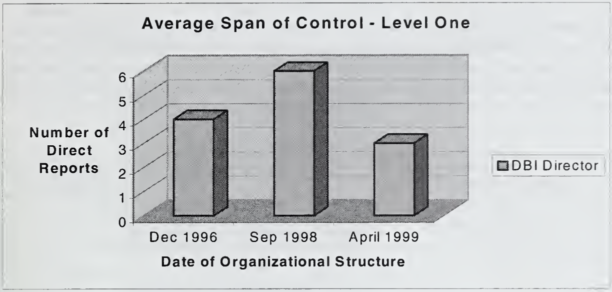


Figure IV-1 Average Span of Control -- Level One

The Director chooses to personally supervise troubled divisions or areas of special emphasis for relatively brief periods of time and then delegates direct responsibility to a principal subordinate. In this manner he does not burden himself with additional direct supervisory responsibility for extended time periods but rather only when such extra emphasis is necessary. This is clearly a useful technique used by the DBI's senior executive to impart clear overall standards and then allow the activity to achieve its mandate independently.

Observations: Level Two Management – Deputy Directors

The current DBI organizational structure consists of two deputy directors for Administration and Operations, each responsible for 7 and 10 direct reports respectively (Figure IV-2).

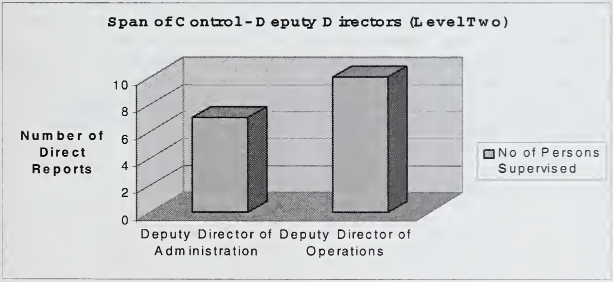


Figure IV-2 Span of Control – Level Two

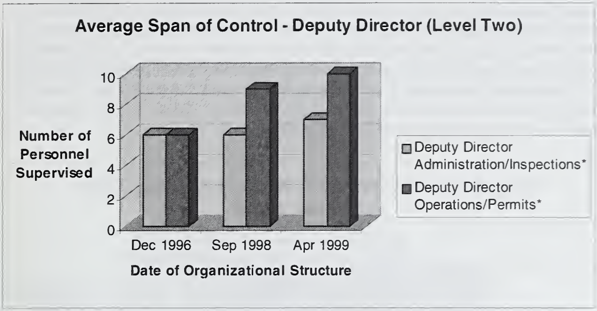
The current DBI organization represents a marked change from its previous structure. The current organization groups all support functions together separating them from most core functional processes of the department; inspections, plan checking activities and the issuing of permits (Central Permit Bureau is the only exception). Prior to April 1999, the principal organizational distinction was between permit and inspection activities with the permit issuing function linked exclusively to the plan check function (Table IV-1).

Table IV-1 – September 1998 Department Organization

Permit Services (Hutchinsen)	Inspection Services (Wong)
Central Permit Bureau	Code Enforcement/Disabled Access
Major Project Plan Check	Building Inspection
Commercial Plan Check	Electrical Inspection
Residential Plan Check	Housing Inspection
Mechanical Plan Check	Plumbing Inspection
Technical Services	Special Programs
One Stop Permit	
Records Management	
Management Information Systems	

This change in structure has significantly altered the direct supervisory responsibilities for both deputies in different ways. Specifically, the Deputy Director for Administration presently finds himself responsible for a variety of administrative support areas while the Deputy Director for Operations is now responsible for inspection services ***as well as*** plan check and permit activities.

This reorganization poses risks in both deputates. Although the current span of control in the administrative deputate remains the same as of September 1998 at 1:6, the diverse nature of component activities make the Deputy Director for Administration 's current managerial responsibilities much more challenging. For now instead of six divisions with four of the six being "inspection-related", Mr. Wong has responsibility for 6 divisions each with a unique mandate. Mr. Hutchinsen's number of direct reports in the operational deputate have increased from 9 to 10 however all these activities are either plan check, inspection or permit related. His challenge is not in the ***diversity*** of his subordinate division rather the high number of separate activities (Figure IV-3).



Prior to April 1999, the DBI's deputy directors were in charge of the "Inspections" and "Permits" versus the current distinction between "Administration" and "Operations".

Figure IV-3 Average Span of Control – Level Two

Observations: Level Three Management – Division Managers

The average number of Level Three direct reports has increased by 1.5 personnel in the Administrative deputate to 1:6.5 personnel while the direct reports in the Operations deputate has decreased from 1:8.8 in December 1996 to 1:6.1 as of April 1999 (Figure IV-4). (The current disposition of supervisory responsibility is not apparent from the DBI's current organizational chart as it does not reflect Level Four supervisors in the Central Permit or Code Enforcement Divisions.)

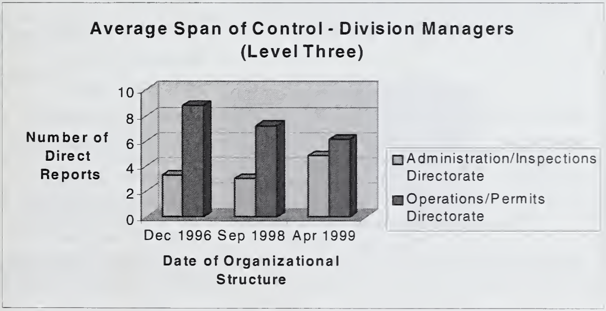


Figure IV-4 Average Span of Control -- Level Three

Despite this statistical similarity in Level Three spans of control, there is actually a marked difference across the components divisions within the deputates. The span of control responsibilities within the DBI at this level vary widely from a high of fourteen in the Major Plan Check division to a low of two in the Central Permit Bureau (Figures IV-5 & 6). The average disposition of division manager supervisory responsibility is much narrower in the Administrative deputate at 1:4.8. In Operations, the division managers on average directly supervise 6.1 employees (Figure IV-6).

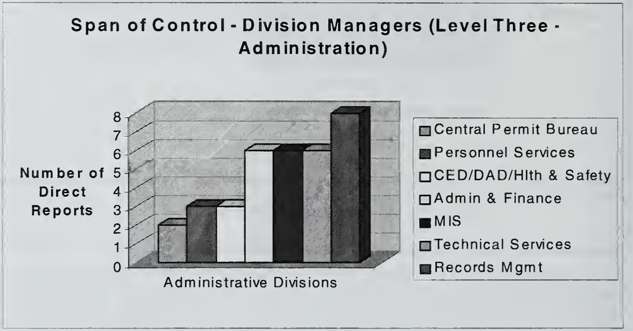


Figure IV-5 Span of Control - Level Three (Administration)

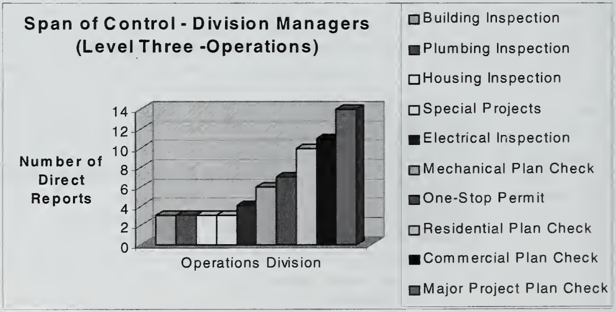


Figure IV-6 Span of Control - Level Three (Operations)

Observations: Level Four Management –Seniors

The Level Four management structure has remained largely the same during the period of analysis; specifically since most Level Four supervisors are senior inspectors within the inspection divisions. Since 1996, the number of persons supervised per senior inspector has steadily decreased for the plumbing and electrical divisions where it has steadily increased for building and housing inspection divisions (Figure IV-7). When combined with the DBI's figures for the number of inspections conducted, this adjustment in line-level inspectors seems logical. (See Section III on Performance Measurement.)

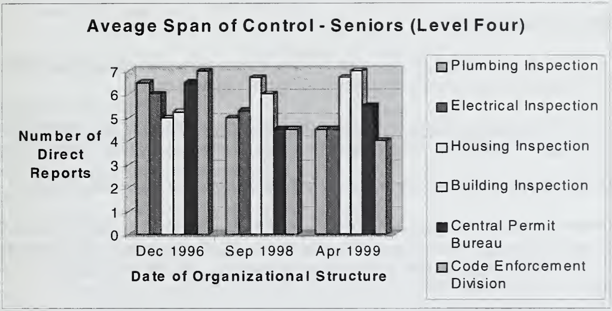


Figure IV-7 Average Span of Control - Level Four

Findings

As the observations above reveal, a wide variety in spans of control exist within the DBI. In this section, KPMG provides key points on several items of interest.

General:

- KPMG's Organizational Model for Change, Organizational Assessment Criteria suggests a ratio of twelve "staff" per every manager.
- In 1994, the National Performance review recommended that the Federal government move from an average ratio of 1:7.0 to 1:14.0.
- Tom Peters author of Thriving on Chaos, states that 'well-performing organizations should operate in a range of 25 to 75 workers for every one supervisor".

In light of these comparisons, collectively the DBI falls within the aforementioned guidelines. Presently the manager to staff ratio within the entire DBI at Levels 1-4 is 1:5.9.

Middle Level Management. The City of Portland established a more detailed scale saying that middle level managers are to have a span of control of no less than 1:5.0 with administrative supervisors having a span of control of 1:6.0 to 1:12.0.

If the DBI's Level Three division managers are considered "middle level management", again the Department is at the low end of the range, for the Administrative deputate the span of control average ratio is 1:4.8; for the Operations deputate the span of control average is 1:6.1. The functional diversity of the divisions in Administration may justify a lower manager/staff ratio.

Layers of Management:

- Two organizational experts, Robert Tomasko and Tom Peters, believe that an organization should have a maximum of five management layers.
- KPMG best practice standards indicate the public sector organizations should have no more than six layers of management, except in very unique circumstances

The DBI lies well within these parameters with its four internal management levels.

Considered purely on statistical ratios alone, the DBI's internal spans of control meet or exceed a variety of widely accepted evaluation criteria. But instrumental to our approach is a consideration of other factors relevant to organizational structure such as the similarity of department functions; the complexity of their job responsibilities; the direction, control, planning and coordination required to fulfill the organizational mission. As such it is important to note the following:

Plan Check functions: The DBI's Plan Check divisions each operate as a separate division although each of the four has the same basic mission. While the types of plans and their degrees of complexity vary widely, the basic functions of the four divisions remain the same. Given the tremendous work volume coupled with the significant supervisory responsibility in the Commercial and Major Project Plan Check divisions, (1:11 and 1:14 respectively), this condition warrants closer examination. Some consolidation of plan check functions and/or plan review responsibilities between the four different Plan Check divisions may relieve some of the burden upon the present division heads as well as the Deputy Director for Operations.

Major Project Plan Check: The 1:14 supervisory ratio in this division is the highest in the entire Department. Although the ratio does not significantly exceed some span of control guidelines, the demanding supervisory responsibility coupled with the important mission of the Division raises at the very least concerns about its effectiveness. This situation is made more significant because the projects reviewed by this division are highly visible and are tracked closely by a number of public and private agencies outside the DBI.

Recommendation

IV-1. Consider the addition of a single supervisor over the Department's plan check activities.

The similarity of the function seems to indicate that this would be a logical step towards making the best use of resources. Such an arrangement would allow another mid-level supervisor to place extra emphasis on the Plan check area and relieve Mr. Hutchinsen of some of his day-to-day supervisory responsibilities. This addition could help clear up the backlog and improve permit issuing times within the DBI. The recommendation requires much additional consideration and analysis.

Staff Training and Accountability

Approach and Activities

The KPMG project team examined staff training and accountability within the department through a series interviews and two targeted survey instruments. These steps were designed to gain an understanding of

- Methods for determining and delivering training;
- Management and support staff attitudes towards training;
- Management attitudes towards performance measures and accountability, and
- Support staff attitudes towards work responsibilities and accountability.

Training and accountability issue areas were identified in the Phase I Risk Assessment. To investigate these issues further we did the following:

- Interviewed the Personnel, Technical Services managers in Administration and selected Plan Check and Inspections managers in Operations;
- Reviewed documentation recording training requests, fulfillment and payments to training vendors, and
- Developed, administered and analyzed survey instruments soliciting input from two employee groups—administrative support and mid-level management--on training and accountability issues.

Observations and Findings

Key to our analysis are the responses to the two survey instruments. We developed our findings and observations from these survey responses in conjunction with information gathered from the interviews and document review noted above. Our observations and findings are discussed below as follows:

- Survey Distribution and Response Patterns – a comparison of surveys distributed and surveys received for each of the two groups, by functional area.
- Survey Responses – a discussion of the survey responses received from each group, and our observations and findings.

Survey Distribution and Response Patterns

KPMG distributed administrative and management surveys to a total of 57 individuals across various functional areas of responsibility. Of the 57 surveys distributed, 40 responses were received for an overall response rate of 70%. Distribution and response patterns for administrative and management surveys are discussed separately, below.

Administrative Support

Administrative surveys were distributed to support personnel in the Plan Check and Inspections divisions, and to operations clerks in the Central Permit and One Stop divisions as illustrated (Figure IV-8).

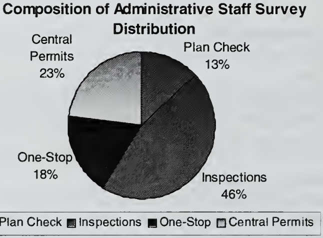


Figure IV-8

Few Responses from CPB Staff –Administrative support and operations clerical staff were less responsive to the survey than their management counterpart. This was especially the case for Central Permit Bureau which accounted for 23% of the surveys distributed but only 4% of the responses collected (Figure IV-9).

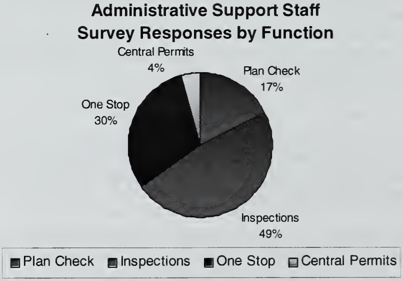


Figure IV-9

Management

Management surveys were distributed to the managers and seniors in the Plan Check and Inspections divisions as illustrated (Figure IV-10).

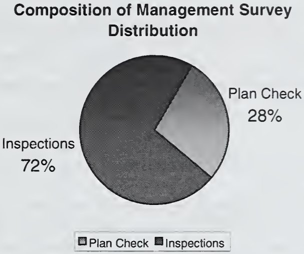


Figure IV-10

High Management Response Rate - Management survey responses closely mirrored the distribution pattern with a virtually identical numbers from each function responding (Figure IV-11).

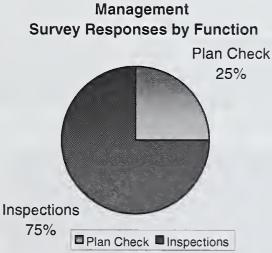


Figure IV-11

Survey Responses

Administrative Staff

KPMG developed a questionnaire to assist us in gauging staff training and accountability across the DBI. Administrative staff members in the four functional areas were asked to respond to a series of eight questions. Responses for each question are summarized below (Table IV-2).

Table IV-2 – Administrative Survey Responses

Question	Strongly Disagree	Disagree	No Opinion	Agree	Strongly Agree
1. I have sufficient time and resources to accomplish all the work I am responsible for.	0%	38%	8%	50%	0%
2. My work responsibilities are clearly defined.	0%	13%	8%	67%	8%
3. Work responsibilities for other administrative staff in my unit are clearly defined.	0%	13%	25%	58%	0%
4. I have been provided with sufficient training to perform my job.	0%	17%	13%	63%	4%
5. I could benefit from further training to improve my job skills.	0%	4%	8%	46%	38%
6. My job duties are a good match for my job skills.	4%	13%	8%	58%	13%
7. My supervisor ensures workload is distributed fairly among administrative support in my work unit.	5%	8%	21%	62%	0%
8. Professional staff (inspectors, plan checkers) appreciate and value the work of administrative support staff in my unit.	0%	8%	17%	50%	21%

Overall Survey Responses Positive – Overall, administrative staff expressed positive opinions on work, training, and management, with a high number of positive responses to all questions (Figure IV-12).

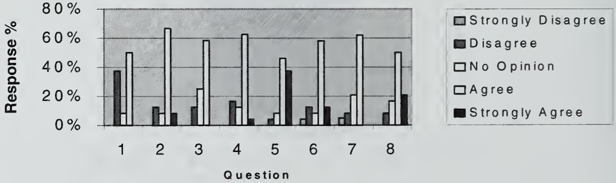


Figure IV-12 — Administrative Survey Responses

In reviewing the comments and responses submitted by Administrative Support Staff, several major themes were evident. Analysis of the response data by KPMG revealed the following themes. In general, administrative staff:

- View workloads, responsibilities and skill levels positively despite significant perceptions of inadequate time and resources;
- Believe training could improve their job skills and performance, and
- Express discontent with the current promotion system.

Positive Responses Overall - Responses with respect to workload and responsibilities were positive overall, with administrative staff agreeing significantly that:

- Responsibilities are clearly defined;
- Job duties assigned are appropriate to staff skills;
- Workloads are distributed fairly, and
- Professional staff value the work performed by administrative and clerical staff.

Substantial Minority View Time and Resources as Inadequate - Overall, 50% of the employees responding agreed that they had enough time and resources to perform their workloads. However, 38% of the administrative staff disagreed and 12% had no opinion. KPMG noted that of the 38% that disagreed, responses were evenly distributed among Plan Check, Inspection, One-Stop and Central Permit Bureau staff.

As noted in the section Business Process Analysis, interviews and observations conducted with administrative staff from the various functions revealed a high number of manually intensive processes. Furthermore, with the staged implementation of Oracle based applications not yet completed, the degree of manual processes varies widely among administrative staff. These time intensive processes combined with the additional responsibilities may provide a partial explanation for staff perceptions that the time and resources available are inadequate to perform their job duties.

High Demands for Additional Training - In general, most employees believed that they had received sufficient training to perform their job duties. However, approximately 85% believed that additional training would improve their job skills and work performance. In support of this perception, KPMG noted that many of the administrative staff members lacked familiarity or skill in using software and technology applications.

Indications of Dissatisfaction with Hiring and Promotions - In addition, several comments indicated discontent with current hiring and promotion practices. Specifically, staff commented that management philosophy should focus more on promoting from within. Currently, staff believe most new employees are sought from outside the organization.

Although most employees agreed that their workloads were distributed fairly, a significant minority, approximately 38%, provided responses of either disagree, strongly disagree or no opinion. Several employees cited strong preferential treatment by managers in the distribution of workloads and hiring of family and friends.

Management
All division level managers were asked to respond to a series of 10 questions. Responses for each question are summarized below (Table IV-3).

Table IV-3 – Management Survey Responses

Question	Strongly Disagree	Disagree	No Opinion	Agree	Strongly Agree
1. In general, performance measures (MBOs) are a useful tool in managing staff workloads.	0%	6%	13%	69%	6%
2. In general, performance measures (MBOs) are a useful tool to ensure individual accountability.	0%	13%	0%	75%	6%
3. The performance measures (MBOs) used currently for my division are appropriate indicators of staff efficiency and effectiveness.	0%	13%	6%	75%	0%
4. I view the performance measures (MBOs) used currently for my division as an important management tool.	0%	6%	19%	63%	6%
5. The MBO goals for my division are reasonable and do not need adjustment.	0%	25%	0%	69%	0%
6. The MBO goals for my division are too high and should be lowered.	0%	50%	25%	13%	6%
7. The current request – driven system is sufficient to ensure adequate training of staff in my unit.	0%	19%	25%	50%	0%
8. State-mandated courses for new and continuing employees provide adequate knowledge for staff to perform most job duties.	0%	44%	19%	31%	0%
9. Training for managers and supervisors is valuable and the current amount of such training is adequate..	0%	25%	19%	50%	0%
10. Technical Services serves as a valuable resource for identifying sources of outside training.	0%	25%	31%	31%	6%

MBOs Accepted but Training Viewed as Inadequate - As indicated by the graph below, survey responses varied markedly by topic. Questions 1-5 on MBO performance measures received highly favorable responses while responses to Questions 6-10 on training were negative. Specifically:

- Most mid-level managers accept MBO performance measures.
- Most managers view training as inadequate and hard to access.

Figure IV-13 on the following page illustrates the composition of management survey responses.

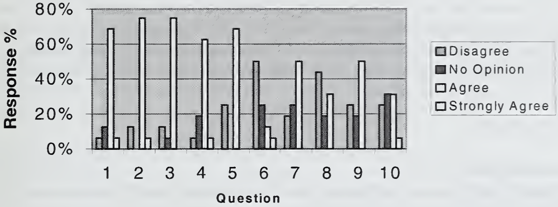


Figure IV-13 – Management Survey Responses

MBOs Viewed as Valid Management Tool – In evaluating survey results from the inspectors, plan checkers and management, approximately 75% said that MBO performance measures were:

- Useful in managing staff workloads;
- Ensured individual worker accountability;
- Appropriate indicators of efficiency, and
- Reasonable.

Although MBO acceptance appears high, some respondents commented that the inspections per inspector per day measure effected the quality of the inspection, noting that inspectors feel pressured to meet their daily goals and may perform a less than thorough inspection.

In the Plan Check divisions, managers commented that workloads are high and resources are inadequate for the performance of high quality plan reviews with the additional demands of responding to numerous customer phone calls and meeting with customers to answer inquiries.

Negative Comments on Value, Adequacy of Training – In general, most staff and management commented that training received was not adequate or valuable. Specifically, those who commented felt that state mandated courses did not provide adequate knowledge to perform most job duties. Although, 50% of the surveys indicated that the amount of training was adequate, the remaining 50% either disagreed or had no opinion.

Views on Current Access to Training, Role of Technical Services Mixed – Based on the responses obtained, it appears that access to training may be difficult given the current processes in place. When asked if the current request system is sufficient to ensure training, only 50% agreed. The remainder either disagreed or had no opinion. Also, of the surveys received, 25% disagreed and 37% had no opinion when asked if the Technical Services division serves as a valuable resource for identifying outside training. The fact that 37% of the surveys indicated no opinion suggests that those individuals have never utilized technical services or were not aware that they provided that function.

Recommendations

Administrative Staff

IV-2. Central Permit Bureau staff should also be trained on the efficient usage of automation and technology already available.

Workload demands in the Central Permit Bureau directly affect customer wait times and satisfaction with service. Indications that a substantial minority view workloads as excessive and desire additional training, combined with KPMG's project team observations, support the need for better availability and use of automated tools to streamline work processes.

Management Staff

IV-3. The Department should re-examine its current request-driven system for addressing training needs, take a more proactive approach with managers to identify specific training needs of professional staff members, and develop periodic and refresher training requirements.

Survey responses indicate management concerns about the current state of training are significant. A substantial minority expressed concerns about the current request-driven system and is unaware of the role of the Technical Services division in identifying and suggesting appropriate coursework. A more structured approach to training would supplement state-mandated courses clearly seen as inadequate with training more responsive to recognized needs.

Employee Utilization

Customer Service

Approach and Activities
As the first contact most customers have with the Department, Customer Service staff members are in a unique position to assist the efficient and effective routing of customers towards the services they seek. From the customer's viewpoint, efficiency in customer service is measured by the speed with which customer inquiries are "resolved", effectiveness by the quality of the "resolution".

Such a perception of customer service is, however, incomplete. Specifically, such a perception does not acknowledge the role Customer Service staff plays in contributing to the efficiency and effectiveness of other units within the Department. Customers misdirected to other divisions add to the workloads of already busy operational staff in the Inspections, Plan Check and One Stop and Central Permit divisions.

In the course of our Phase II research, the KPMG project team identified several indicators that the Customer Service function did indeed affect the efficiency and effectiveness of other Department units. These are detailed in the findings below. Based on these indications, KPMG concluded that additional analysis of Customer Service staff roles and responsibilities was needed. This included:

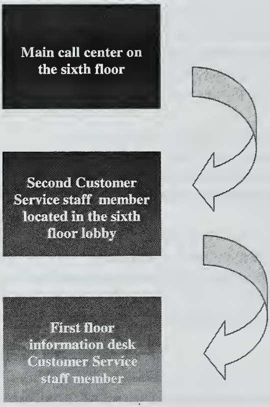
- Interviews of Customer Service staff at two of the three service desks;
- Observation of staff interactions on the phone and in person with customers at these same posts, and
- Examination of staff usage of automated system reference tools available to answer customer inquiries.

Observations and Findings
Top Management Has Made Serving the Customer a Priority – Interviews at various staff levels, as well as operational observation, have made clear that serving the customer is a well-established priority throughout the Department. From the Director to the line employee, customer service is emphasized as the organization's top priority. Many recent initiatives reflect this including the opening of an express window and expansion of the One Stop program. The foundation for a successful implementation of many of KPMG's recommendations to improve service to the customer is already apparent.

Customer Service Staff are Dedicated and Courteous – During the course of observing the delivery and processes associated with customer service, KPMG noted the dedication, courtesy and eagerness with which staff assisted customers. Those staff at the information desk, the first point of contact for walk-in customers, exhibited particular skill in handling a large numbers of sometime impatient customers as well as incoming phone calls.

Incoming Phone Calls Occupy Most of Customer Service Staff Time – Our sample observations indicated that answering customer phone inquiries occupied approximately 80% of time of three full time staff equivalents. The remaining time is dedicated to responding to the questions of walk-in customers. According to our observations, call volumes are not evenly distributed among the three Customer Service stations.

KPMG observed that calls are initially received by the main call center on the sixth floor of the Department. As calls are 'backlogged,' they are rolled forward to staff at two other Customer Service stations as illustrated (Figure IV-14).


Main call center on the sixth floor
Second Customer Service staff member located in the sixth floor lobby
First floor information desk Customer Service staff member

As phone calls become backlogged at the main call center, additional calls are automatically routed to the next station.

When phone calls become backlogged at the second station, the overflow is routed to the first floor representative. This individual then becomes responsible for directing walk-in customers and answering telephonic inquiries.

Figure IV-14 – Customer Service Call Routing

High Volume of Calls with Similar Inquiries – Based on both observation and interviews of Customer Service staff members, KPMG estimates that approximately 75-85% of the phone calls relate to a single topic -- plan status in the plan check process. The figure below depicts the estimated proportion of overall Customer Service staff time dedicated to these inquiries (Figure IV-15).

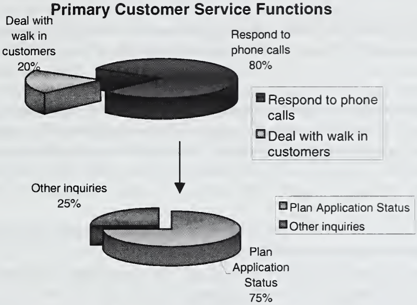


Figure IV-15 - Primary Customer Service Functions

This process creates additional workload for administrative clerks and plan checkers within the divisions. This condition is reflected in the comments of several members of these divisions.

Inability to Capture Key Data on Phone Call Volumes – Data on phone call volumes provides an important tool for management decisions on how to best utilize Customer Service and professional staff to resolve customer inquiries. Existing manual processes are of limited use in capturing volume and performance information. Other critical information that cannot be captured and analyzed includes:

- Initial telephone wait times;
- Telephone wait times after transfer;
- Volumes of calls routed to particular divisions,
- Repeat calls from the same customer with the identical inquiry, and
- Customer inquiry trends.

The Department's own attempt to gather specific call volume information manually has proven difficult. Indications exist that the call volume per month recorded underestimates the actual number of incoming calls. Currently, phone calls are manually logged on sheets of paper and tallied at the end of the day. Although Customer Service representatives are diligent in this effort, the tendency to omit the logging of calls increases as incoming call and walk-in customer volumes increase staff workloads.

A critical indicator of how well service is delivered to the customer via the telephone is "wait time". No reliable estimates exist as to current average wait times although Customer Service staff estimates range from 3-5 minutes, if workload is average, and up to 10 minutes, when the number of backlogged phone calls is high. Monitoring customer wait times and statistics on call content is critical to developing sound strategies for improving customer service.

Inefficient Routing of Calls Cited Across Department - Based on interviews with staff and personnel at various levels across multiple divisions, there is a general concern with the routing of incoming phone calls by Customer Service staff. Many employees stated that they consistently receive phone calls that either should have been routed to another department or responded to by the customer service staff. One interviewee indicated that as many as a third of the phone calls received could be answered by Customer Service staff. Another suggested the establishment of 'quiet hours' for Plan Check professionals to limit the disruption to work flow from incoming phone calls. However, the Department currently has no means to accurately assess the following:

- The number of phone calls resolved by customer service versus the number routed to Department operations staff;
- Which Plan Check or Inspection divisions receive the highest number of routed phone calls, and the time spent responding to these, and
- The average time required per phone call.

Reliable information on these and other measures of call volumes and compositions are necessary to develop a sound strategy to best employ Customer Service staff and relieve operations staff of the necessity of responding to excessive numbers of calls.

Recommendations
IV-4: Continue the current strong leadership from top management emphasizing customer service as a priority throughout the Department.

Since the Department's separation from the Department of Public Works, senior management has supported several initiatives to improve customer service and created a sound customer service culture within the organization. This organizational ethic will serve the Department well as it moves forward to implement many of the recommendations in this report.

IV-5: ***The Department should move to implement an interactive voice response (IVR) system as a first step to collecting call volume information necessary to planning a sound strategy to lessen Customer Service workloads, operational staff distractions and ensure a more effective utilization of resources organization-wide.***

Based on an analysis of call volume information collected, the Department could shape the IVR to system could handle the most common inquiries by allowing most customers to:

- Reserve inspection appointment times without Inspection clerical assistance;
- Check status and time to completion of plans in the plan review process without Customer Service or Plan Check staff assistance (This would require an interface with the Oracle system and require modifications/additions to plan check status information as discussed in the section on performance measures.), and
- Access technical code interpretation staff directly without Customer Service staff assistance.

Workloads for Inspection division clerks, Plan Check division professionals and the Customer Service staff would decrease, allowing the Department to re-allocate staff to permitting or other functions and increasing available time for plan review duties.

Code Interpretation

Activities and Approach

Within the City and County of San Francisco, the Department is the deciding authority on questions of code interpretation. New code rulings from the State must be codified into San Francisco law and the specifics of their implementation in practice decided. Many customer inquiries concern the interpretation of codes, and whether certain construction methods are permissible under specific articles of the code. Based on the answers to these inquiries, developers, designers and architects modify plans for construction to ensure their smooth passage through the plan check process.

Staff time is required to both respond to the numerous code interpretation questions, and develop specific interpretations of new code rulings. To gain an understanding of these processes and the time involved, KPMG performed the following:

- Interviewed Technical Services management on code interpretation activities;
- Prepared, administered and analyzed an activity matrix diagnostic tool to select Plan Check staff to identify work activities and associated time required;
- Analyzed activity matrix responses, and
- Conducted additional inquiries with Plan Check staff to determine code interpretation activities in greater detail.

From these activities, KPMG developed a composite picture of code interpretation duties, and staff roles and responsibilities.

Observations and Findings

Responses to Code Interpretation Inquiries Lack Consistency – Currently, two different staff groups are charged with the responsibility of answering code interpretation inquiries:

- A dedicated staff member from the Technical Services division, and
- Plan Check professionals staffing counters or responding to phones as part of their daily duties.

Along with its other responsibilities, the Technical Services division documents changes to the City and County's construction codes and represents the Department at public forums on code issues. Plan Check professionals responding to code interpretation inquiries are the same staff members charged with reviewing and approving construction plans for permit issuance.

Several comments from focus group participants and individual interviewees indicate that code interpretation responses given by these two groups often differ. (However, our review found no documentation available to substantiate the frequency of this condition.) While Plan Check staff base their answers on ongoing experience with plan reviews and consensus opinion among other plan reviewers on code issues, Technical Services personnel draw from a more academic knowledge of the code.

The result can be contradictory responses to the same code question. This condition contributes to customer confusion and impatience. Plans submitted in accordance with one code interpretation may be rejected because of a conflicting interpretation of the code used by the actual plan reviewer.

Code Interpretation Inquiries Detract from Overall Plan Review Time – As part of its analysis, KPMG asked several members of the Plan Check staff to list typical work duties and the times required for each. The results of this exercise are shown in Table IV-4 below.

Table IV-4 – Time Spent Responding to Code Interpretation Inquiries

Staff Member	Daily Time Spent (Hours)	Monthly Time Spent (Hours)
1	0.5	10
2	1.0	20
3	0.8	16
4	0.5	10
AVERAGE	0.7	14
Average X 33 Staff Members	23 hours per day	462 hours per month
FTE	*Average: 3 FTE* *Low: 2 FTE -- High: 4 FTE*	

As shown above, Plan Check staff spend several hours a day answering general code interpretation questions. Several Plan Check professionals noted that the distractions of customer inquiries interfere with the progress of plan review duties. If plans are complex, such interruptions can derail the train of thought and cause delays far beyond the actual time spent responding to the inquiry.

Currently, the Technical Services division has one dedicated staff member assigned to answering code interpretation questions and responds to an estimated 60-70 calls per day. Like his counterparts within the Technical Services division, this staff member does not review plans. One additional member of the Commercial Plan Check division staff is also dedicated, in part, to answering general code interpretation questions.

Recommendations

IV-6. Eliminate conflicts in code interpretation provided to the public between the Technical Services and Plan Check professional staff by establishing periodic forum to identify, discuss, and resolve code interpretation issues.

Conflicting code interpretations provided to Department customers are a cause of frustration for both Plan Check professional staff and the customer. Plan Check staff face the unpleasant task of informing the customer that the interpretation provided was not reflective of plan check practices, and the customer must take steps to revise the plans to comply with the 'new' interpretation. Formalized procedures to ensure uniformity in code interpretation information provided to the public could prevent such situations.

IV-7. Consider employing an additional Technical Services staff member to answer general code inquiries during peak periods to lessen the demands on Plan Check professional staff.

Once a mechanism to ensure uniformity of code interpretation advice is in place, primary responsibility for responding to code interpretation questions should shift to non- Plan Check staff. Fewer interruptions and more time available should allow Plan Check professionals to increase the overall number of plans reviewed.

Focused Expenditure Review

Overview:

At the request of the Office of the Controller, KPMG conducted a focused review of funds allocated for the purchase of laptop computers by the Department of Building Inspection. Our objective was to determine the disposition of these funds assess the usage requirements for this expenditure and ascertain the current location and employment of these laptops.

Approach and Activities

KPMG performed the following with regard to the laptop authorization for FY 96-97:

- Conducted interviews with the DBI Administrative and Finance Manager and associated staff to obtain background information on this computer purchase;
- Obtained purchase requisitions, purchase orders, invoices, voucher posting and a listing of the current locations and utilization of the laptops prepared by DBI, and
- Conducted a limited random inventory of the machines. KPMG verified the existence of each item by corresponding serial number and noted its current usage. Table V-1 below displays the results of this inventory.

Table V-1 – Listing of Laptop Computers Selected for Verification Check

Computer	Serial Number	Assignee	Use
HP Omnibook	SG64300844	W. Wong	Used as a desktop computer
HP Omnibook	SG64300846	Y. Chiu	Used as a desktop computer
HP Omnibook	SG64300861	D. Duffy	Used as a desktop computer
HP Omnibook	SG64300764	R. Birmingham	Used as a desktop computer
HP Omnibook	SG64300827	J. Lee	Used as a desktop computer
HP Omnibook	SG73610548	J. Miyamoto	Used as a desktop computer

Findings and Analysis:

According to interviewees, the laptops were originally purchased as part of an effort to automate inspection processes. Laptops were originally intended to allow inspectors to download information from the DBI's Oracle database remotely and provide customers with required permit/inspection paperwork while on-site.

An initial operational test, however, revealed limits to the practical application of this plan. Specifically, inspectors required over two hours to download the required database information remotely using the laptops.

Finding
Based on documentation provided by the client, the DBI received $284,400 in budget appropriations for fiscal year 96/97 to purchase the equipment listed in Table V – 2 below:

Table V-2 - Laptop Computer Appropriation

Item Description	Unit Cost	Number of Units
Laptop Computer	$5,850	40
Software Upgrade	$450	40
Portable Printer	$360	40
Radio Base Station	$18,000	1

Of the 40 computers appropriated, based on documentation received, only 33 were purchased. These purchases were recorded in the four purchase orders shown in Table V-3 below:

Table V-3 – Laptop Purchase Orders

P.O. Number	Request	P.O. Total Price	Unit Price
POBI97-23	11 Toshiba laptops	$88,489***	$5,165
POBI97-50	20 HP Omnibooks	$111,380	$5,569
POBI98-11	1 HP Omnibook	$4,034	$4,034
POBI98-14	1 Toshiba 510CDT	$5,812	$5,812

*** This amount included the purchase of other items, including other equipment and peripherals. Total purchases for the four purchase orders listed is $193,143.

Note: Purchase requisitions and purchase orders reviewed by KPMG appeared to be reasonable. In addition, it appears that the unit prices of the computers purchased did not exceed budgeted unit prices.

Vendors' invoices recorded the actual transfer of the laptops. KPMG reviewed the invoices and noted that the amounts reconciled to the purchase order without material exceptions. In addition, KPMG reviewed the prepared voucher posting noting that the entry appeared reasonable.

Finding
In reviewing the laptop invoices KPMG noted the Department purchased several items for use in conjunction with the laptops.

As shown in Table V – 4 on the following page, several pieces of accessory equipment for use with the computers were purchased with the funds.

Table V-4 – Accessory Items Purchased with Appropriated Funds

Invoice Number	Reference Number	Issue
889102	POBI97-23	The following items were included in the purchase. These were separate budgeted items: 11 VGA 17' monitors @ $8,979 3 LEX Laser Printers @ $10,452 3 Duplexer Printers @ $1,351
POBI98-14	Toshiba 510CDT	This laptop was included in the supporting documentation but not on the laptop listing.

Finding
Based on the client-prepared laptop listing, KPMG noted that, of the 33 laptops purchased, one was currently being repaired and the remainder was being used for the various functions as shown in Figure V-1 below:

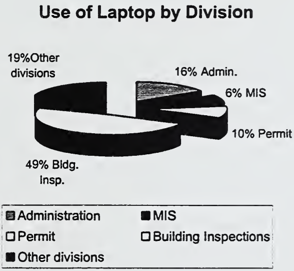


Figure V-1 – Current Laptop Utilization

The purchased laptop computers were re-distributed to various divisions within the DBI after remote use for inspections proved to be impractical. Further detail on current usage is provided below:

- The Building Inspection division staff use 49% of the laptops. Based on an interview with MIS personnel and physical observation, these laptops are now used as desktop computers. The inspectors conduct their work in the field and create reports and track information from the office.

- Administration and senior management use 16% of the laptops in addition to their office desktops. The laptops are reportedly used outside the Department to perform DBI-related tasks.
- Permit staff use 10% of the laptops in addition to their desktops. These laptops reportedly remain at their residences, due to the nature of their job responsibilities and hours of this work is performed.
- MIS personnel utilize 6% of the laptops.
- Finally, 19% of the laptops are utilized by other divisions either as desktops or in addition to existing office computers.

Appendix A

Phase I Risk Assessment Report

Section 1 – Introduction

On April 29, 1999 the City & County of San Francisco (CCSF) engaged KPMG LLP to conduct a Performance Audit of the City and County's Department of Building Inspection (DBI). This document contains the results of the initial phase of this effort and is organized as follows:

Section 1	Introduction
Section 2	General Approach
Section 3	Focus Interviews
Section 4	Document Review
Section 5	Risk Assessment Matrices
Section 6	Conclusion
Appendix A	Statistical Data
Appendix B	Document Listing

Section 2 – General Approach

KPMG's approach for this project is a two phased initiative. The initial phase, a high level risk assessment of the DBI, took place from May 14, 1999 until June 4, 1999. (The second phase, the *detailed* execution of the performance audit itself, will occur following acceptance of the Phase One Risk Assessment results.) During this initial phase, KPMG sought to develop a broad understanding of the practices currently employed by the DBI and identify general areas of higher risk. We used a twofold approach for this phase and began by conducting a series of focus interviews with a variety of Department personnel. We then carried out a high level review of some of the Department's documented plans and procedures. Specific details of both these efforts are outlined in the sections below.

Section 3 – Focus Interviews

KPMG began the Phase One activities by reviewing the DBI's current organizational structure and identifying those positions most useful in helping us direct our efforts during Phase Two of the project. We devised a detailed interview questionnaire asking respondents to speculate, express opinion, make judgements and provide examples of their answers rather than merely providing yes/no responses to the standard set of questions. Our intent in this exercise was to encourage speculation on the part of the interviewee and use their familiarity with the DBI's current operations to help us identify potential areas for improvement. Table 1 lists the DBI personnel interviewed during the conduct of Phase One.

Table 1 – Focus Interview Listing

Name	Position
Frank Chiu	Director
William Wong	Deputy Director, Administration
James Hutchinsen	Deputy Director, Operations
Amy Lee	Manager, Administration & Finance Division
Peter Burns	Manager, Code Enforcement/Disability Access/Health & Safety Division
Carolyn Tusch	Manager, Central Permit Division
Dennis King	Senior Inspector, Plumbing Inspection Division
Todd Huntington	Manager, Residential Plan Check Division
Patty Perez	Manager, Customer Services Division
Steven Powers	Inspector, Electrical Inspection Division
Wing Lau	Manager, Building Inspection Division
Jeffrey Ma	Plan Checker, Major Project Plan Check Division
Sergio Salvetti	Inspector, Housing Inspection Division
Marcus Armstrong	Manager, Management Information System Division

In the limited time available, KPMG sought to interview not only the senior leadership of the department but also middle level managers, first line supervisors and district inspectors. The purpose of this was to gain an appreciation of the overall strategic objectives of the DBI as well as some of the routine operational concerns affecting the Department.

KPMG intentionally concentrated Phase One interviews in the Administrative Deputate for two primary reasons. The first of these was that this deputate has several relatively new division managers. Secondly, the divisions within the Operations Deputate are similar in structure and in purpose. We therefore chose to interview at least one individual at each level common to the four like divisions. In this manner, we were able to ensure that we obtained a preliminary perspective from each of the major functional divisions as well as the point of view of the Department's baseline level employees. We anticipate the need to conduct more focus interviews and/or seminars to support the execution of Phase Two, and as such, will be able to solicit the opinions of other members of the larger divisions within the Department.

KPMG assembled the significant statistical data obtained during the conduct of the focus interviews. This information is located in Appendix A to this document.

Section 4 - Document Review

KPMG's Phase One efforts also included a cursory review of some of the DBI's formal documentation. This review covered the current Standard Operating Procedures Manuals for the divisions, informational brochures, quarterly and annual reports, miscellaneous bulletins and court rulings. Table 2 below identifies some general observations and specific associated examples made during the conduct of this review.

Table 2 – Documentation Review Observations [1]

Observation	Example
Outdated Information	Several documents still contain memoranda issued by the Department of Public Works (DPW) and other information dated as far back as 1978. Some of these documents include the Operating Procedures Manuals for Plan Check Divisions, Special Projects, Building Inspection Division, and Housing Inspection Services. The DBI may wish to conduct a review of these documents and purge any obsolete information
Administrative Policies	Most documents contain a variety of administrative information such as general City and Department Policies, operational guidelines for the use of radios and vehicles, employee handbooks, and the Code of Safe Practices. The DBI might consider consolidating such policies and procedures into a separate document common to all divisions.
Duplicate Manuals	The Major, UMB, Commercial, and Residential Plan Check Divisions all use the same Operating Procedures Manual. We learned however during focus interviews that procedural differences do exist between these divisions. Specific divisional annexes or addenda may be necessary for documenting these operational differences.

[1] *A list of the documents reviewed is located at Appendix B.*

Section 5 – Risk Assessment Matrices

Using the information acquired via focus interviews and our document review, KPMG developed two Risk Assessment Matrices reflected in Tables 3 & 4 below. The first matrix highlights the overall level of risk in each of the general functional areas addressed during Phase One. Below Table 3 we explain in more detail the notes associated with the high risk areas identified in this first matrix.

In Table 4 we break down the aggregate risk ratings found in Table 3 by individual division of the DBI. Note that some specific division areas do not have complete ratings as these organizational areas were not addressed during the initial phase. However, some of these non-evaluated divisions do reflect the DBI's collective risk ratings where we feel it is appropriate.

Table 3 – Department Level Risk Assessment Matrix by Functional Area

Functional Area	Risk Level			Example Areas
	High	Medium	Low	
Communication		X		• Organization-wide Communication • Meeting frequency
Teamwork			X	
Business Processes[2]	X			• Performance Measurement[3] • Plan Check Operations[4] • Inspection Operations[4] • Permit Issuing Services[5]
Policies & Procedures[2]		X		• Divisional Standard Operating Procedures[6] • General Administrative Policies[6]
Reward & Recognition		X		• Employee recognition program • Suggestion program
Information Systems[4]	X			
Roles & Responsibilities			X	
Customer Focus			X	
Leadership			X	
Skills & Training		X		• Technical Sustainment Training Program
Accountability		X		• Performance Appraisal Program • Application of management controls

[2] **"Business Processes" and "Policies and Procedures" Functional Areas.** Business Processes refers to the operational functional processes in use at the DBI, "Policies and Procedures" refers to formal documentation currently in effect at the DBI.

[3] **Performance Measurement.** The DBI diligently tracks performance data for several key areas such as the "number of inspections conducted" and "complaint response time". The DBI, however, apparently does not monitor progress in non-core functional areas such as finance & administration nor in other core competencies reflected in divisional mission statements. In addition, the variety of methods employed for monitoring and collecting key performance data indicates a higher level of risk in this area.

[4] **Plan Check and Inspection Operations.** These are two critical functions within the DBI's Operations Deputate and the results of focus interviews indicate that these are areas with significant potential for improvement. Specific areas of concern include inspection scheduling procedures, plan check workflow, and complaint tracking/follow-up.

[5] **Permit Issuing Services.** KPMG will examine this area in conjunction with the review of the DBI's Permit Tracking System (PTS). The Controller's Office identified this as a primary focus area.

[6] **Divisional Standard Operating Procedures and General Administrative Policies.** As discussed in Sections 3 & 4 above, our review of departmental policies and procedures identified numerous shortcomings in this area. Although significant opportunity for improvement exists throughout the DBI, KPMG contends that this weakness does not substantially impact departmental operations.

Table 4 - Risk Assessment Matrix by Organizational Unit and General Functional Area

	Communication	Teamwork	Policies & Procedures	Business Processes	Rewards & Recognition	Information Systems	Roles & Responsibilities	Customer Focus	Leadership	Skills & Training	Accountability
OPERATIONS											
• Building Inspection Division	M	L	M	H[6]	M[7]	H	L	L[8]	L	M	M
• Electrical Division	M	L	M	H	M	H	L	L	L	M	M
• Housing Inspection Division	M	L	M	H	M	H	L	L	L	M	M
• Plumbing Division	M	L	M	H	M	H	L	L	L	M	M
• Special Projects Division[10]		L	M			H	L	L			
• One-Stop Permit Coordination Division		L	M	M	M	H	L	L	L		
• Commercial Plan Check Division		L	M	H	M	H	L	L	L		M
• Major Project Plan Check Division	M	L	M	H	M	H	L	L	L	M	M
• Mechanical Plan Check Division		L	M	H	M	H		L		M	M
• Residential Plan Check Division	L	L	M	H	M	H		L			L
• Special Projects Division		L	M			H		L			M

[7] H – High Risk Potential

[8] M – Medium Risk Potential

[9] L – Low Risk Potential

[10] Blank areas not evaluated during Phase One.

Table 4 - Risk Assessment Matrix by Organizational Unit and General Functional Area (cont.)

	Communication	Teamwork	Policies & Procedures	Business Processes	Rewards & Recognition	Information Systems	Roles & Responsibilities	Customer Focus	Leadership	Skills & Training	Accountability
ADMINISTRATION											
• Administration & Finance Division	M	L	M	M	L	H	M	L	L	M	H
• Code Enforcement Division	M	L	M	M	L	H	L	L	L	M	H
• Central Permits Division	M	L	M	H	L	H	M	L	L		M
• Records Management Division	M	L	M	M	L	H	L	L		H	H
• Personnel Division			M			H		L			
• Technical Services			M			H		L			
• Management Information Division	M	L	M	H	L	H	M	L	L	H	H
OTHER											
Customer Services	M	L	M	H	L	H	L	L	L	L	L

[7] H – High Risk Potential
[8] M – Medium Risk Potential
[9] L – Low Risk Potential
[10] Blank areas not evaluated during Phase One.

Section 6 - Conclusion

Despite the cursory level of our review during the first phase of this performance audit, we believe that the areas identified during this risk assessment warrant closer examination. Since the high risk areas and even the example functions within these areas are broad and require further definition, KPMG recommends awaiting the Controller's Office acceptance of this assessment before proceeding into Phase Two.

Although KPMG rated the "Management Information Systems" functional area as high risk, we recommend not emphasizing this area during the second phase. We contend that the Oracle system implementation now underway creates too dynamic a working environment to effectively evaluate this area. We will however evaluate, as originally requested, the effectiveness of the existing Permit Tracking System (PTS).

Together with the CCSF Controller's Office staff we recommend joint discussion on the possible approaches for Phase Two activities so as to arrive at a common understanding of the methods and approaches to be used.

Appendix A – Statistical Data

In order to help identify potential areas of higher risk existing within the DBI, our Phase One focus interview questionnaire included a number of questions requiring rank order responses from each interviewee. From a set of twelve functional areas, respondents were asked to identify those areas *where a significant opportunity for improvement exists within the organization.* We then asked them to rank order these areas, and estimate both the *current level of effectiveness* and the *opportunity for improvement.* The data displayed in Figures 1 – 4 of this section reflects the responses received during this effort.

The data in the following graphs should not be confused with the ratings found in the risk assessment matrices found in Section 5. This data is provided only to help clarify the nature of the responses and lend general support to the ratings found in Tables 3 & 4. Although they do not uniformly concur with KPMG's ratings, they are in most cases, complementary.

Figure 1 below depicts the frequency in which interviewees identified a specific functional area as having a significant opportunity for improvement.

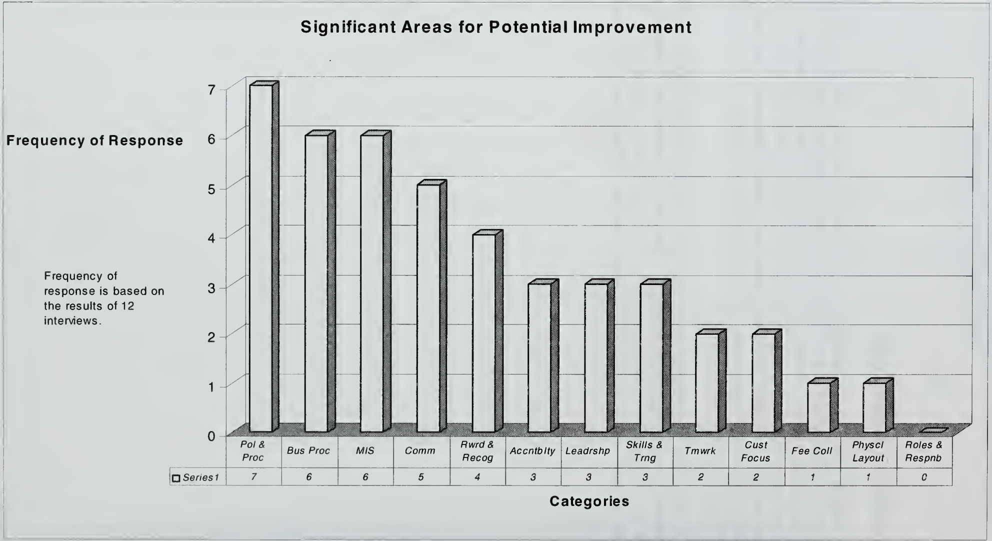


Figure 1 – Significant Areas for Potential Improvement

Figure 2 displays the average rank order of the specific functional areas as *significant areas* (e.g. the area Policies and Procedures was consistently selected as the most significant area.)

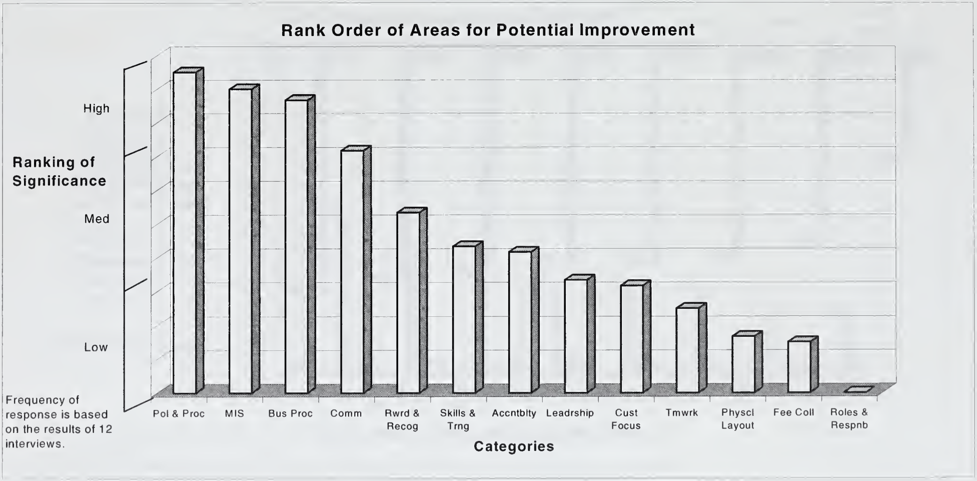
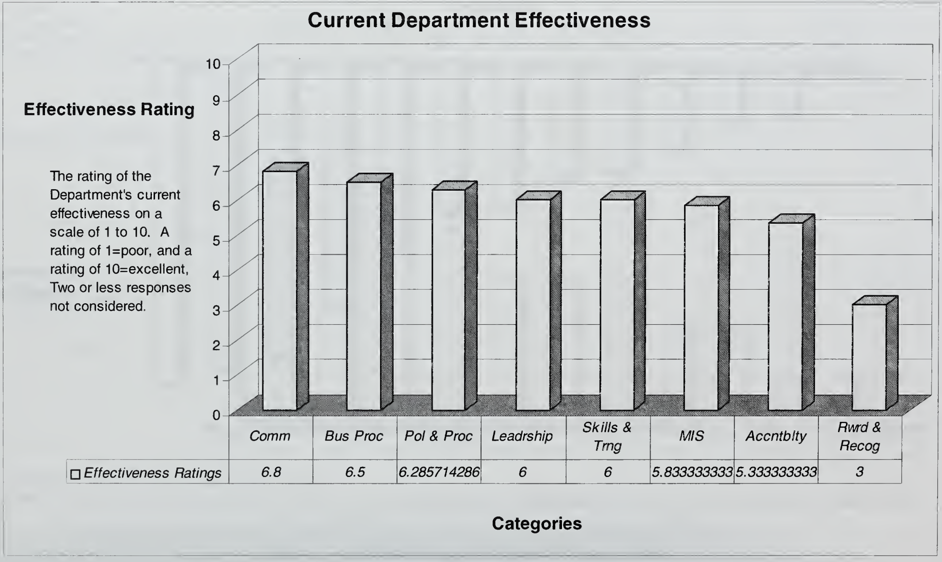


Figure 2 – Rank Order of Areas for Potential Improvement

Figure 3 shows the respondents assessment of the Department's current level of effectiveness in the significant areas indicated and the potential improvement opportunity (above current performance levels) in these significant areas.

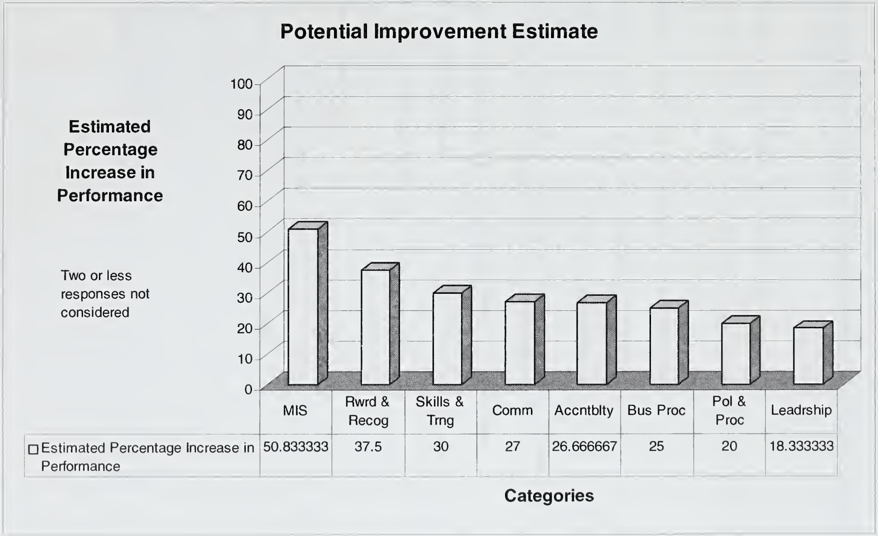


The rating of the Department's current effectiveness on a scale of 1 to 10. A rating of 1=poor, and a rating of 10=excellent, Two or less responses not considered.

	Comm	Bus Proc	Pol & Proc	Leadrship	Skills & Trng	MIS	Accntblty	Rwrd & Recog
☐ Effectiveness Ratings	6.8	6.5	6.285714286	6	6	5.833333333	5.333333333	3

Figure 3 Current Department Effectiveness

Figure 4 shows the respondents assessment of the Department's potential improvement opportunity (above current performance levels) in these significant areas.



	MIS	Rwrd & Recog	Skills & Trng	Comm	Accntblty	Bus Proc	Pol & Proc	Leadrship
☐ Estimated Percentage Increase in Performance	50.833333	37.5	30	27	26.666667	25	20	18.333333

Figure 4 – Potential Improvement Assessment

Appendix A – Document Listing

The Department of Building Inspection provided the following documents for our review during the conduct of Phase One:

1. Issued Disabled Access Bulletins As of March 1999

2. DBI Office Policy and Procedures for Field Inspection Consistency #OP-013.98, February 12, 1998

3. Quality Control Activity Report, February 17 – April 12, 1999

4. Inventory and Audit of the DBI Network prepared by Computown, December 12, 1999

5. Memo on Dismissal of Lawsuit on Disability Access Enforcement, August 31, 1998

6. Draft Focus Group Meetings Summary Report, California Board of Architectural Examiners prepared by Moore, Iacofano, Goltsman, Inc., November 1998

7. Civil Grand Jury Reports, City & County of San Francisco, 1996 – 1997

8. Compilation of DBI Brochures

9. Standard Operating Procedures Manual

- ➢ Customer Services
- ➢ Operations Program
    - Building Inspection
    - Electrical Inspection
    - Housing Inspection Services
    - Major & UMB Plan Check
    - Mechanical Plan Check
    - Plan Check Services
- ▪ Commercial Plan Check
- ▪ Major & UMB Plan Check
- ▪ Residential Plan Check
    - Plumbing Inspection
    - Special Projects
    - UMB/Parapet Programs

- ➢ Administration Program
    - Administrative & Finance
- ▪ APDICS
- ▪ Controller's & Citywide Policies, Memos & Guidelines
- ▪ FAMIS
    - Central Permit Bureau
    - Code Enforcement/Disabled Access/Health & Safety
- ▪ Code Enforcement Division
- ▪ Disabled Access
- ▪ Lead Hazard Reduction Program
    - Management Information Services
    - Personnel & Payroll
    - Records Management
    - Technical Services

10. One-Stop Permit Coordinating Program, Standard Operating Procedures Manual

11. Management Information Services, Standard Operating Procedures Manual

12. DBI's Purpose, Mission, Highlights for 1995, 1996

13. Director's Christmas Message to DBI Staff and Friends, 1997 & 1998

14. Director's Memo to Controller's Office and Mayor's Office on Budget Performance Measures, FY 1999-2000

15. Organizational Chart

- ➢ DPW, Bureau of Building Inspection, November 1994
- ➢ DBI, Proposed FY 95-96 Organizational Chart, January 1995 (draft)
- ➢ DBI, Organization Chart FY 94-95, May 1995 (draft)
- ➢ DBI, Organization Chart FY 95-96, February 28, 1996
- ➢ DBI, Organization Chart FY 96-97, December 1996
- ➢ DBI, Organization Chart FY 1998-1999, April 1999

16. Director's Memo on Reorganization of the Department of Building Inspection, January 25, 1999

17. Proposition G, Creating Department of Building Inspection

18. Quarterly Reports 1996-97, 4th Quarter Report

Appendix B

Activity Matrices

Inspection Divisions

Division:	Housing Inspection Services Division
Name:	Paul Lansdorf
Position:	Housing Inspector
Tenure:	14 years

Task/Activity	Frequency (D,W,M,Q, Y)	Time Required (Hrs)	Typical Workload/ # of Items	Input or Source	Output or Disposition	Monthly Hours	Daily Hours
Schedule electrical inspections	D	1	8 to 20	Phone calls from customers	Inspection scheduled	21.76	1
Conduct electrical inspections	D	6	8 to 20	Electrical permits / inspector's job cards	Approve permits / reinspections / issue correction notices	130.56	6
Answer code questions	D	.25	1	Customer inquiries	Customer service	5.44	.25
Staffing office	Bi-weekly	8	--	Answer customer inquiries and assist in permit processing	Customer service	17.41	.8
Attend technical training	M	2	1	From Chief Inspector	Keep up with industry changes	2	.09
3-R inspections and report	M	1 to 2	1	Customer	Condo conversions	1.5	.07
Special inspections	M	.5	1	Customer	Various	.5	.02
					Total	179.17	8.23

Inspection Divisions

Division: Housing Inspection Services Division
Name: Paul Lansdorf
Position: Housing Inspector
Tenure: 14 years

Task/Activity	Frequency (D,W,M,Q, Y)	Time Required (Hrs)	Typical Workload/ # of Items	Input or Source	Output or Disposition	Monthly Hours	Daily Hours
Schedule electrical inspections	D	1	10	Phone calls from customers	Inspection scheduled	21.76	1
Conduct electrical inspections	D	3	6	Electrical permits / inspector's job cards	Approve permits, reinspections, issue Correction Notices	65.28	3
Answer customer inquiries	D	1.5	8	Customer inquiries – walk-ins, phone calls	Customer service	32.64	1.5
Safety training/ Staff meetings	M	1	1	Mandatory state safety training, Division issues	Satisfy state safety training requirements, communication within the Division	1	.05
Supervise electrical inspectors' activities	D	2	8	Daily activities reports submitted by District Inspectors	Monitor staff performance, resolve any staffing issues	43.52	2
Investigate complaints	W	1	2	Calls and letters from the public, referrals from other Divisions, departments, Mayor's office, Board of Supervisors, and etc.	Abatement, issue Correction Notice, issue Notice of Violation	4.35	.2
Investigate work without permits	M	2	2	Calls from neighbors	Abatement, issue Notice of Violation	2	.09
Written correspondence	W	2	2	Letters from the public	Answer inquiries from the public	8.7	.4
Code research	D	.5	3	Inquiries regarding code from the contractors, property owners	Answer code questions	10.88	.5
Phone messages	D	.5	10	Call customers back to schedule appointments	Customer service	10.88	.5
					Total	201.01	9.24

Inspection Divisions

Division: Housing Inspection Services Division
Name: Paul Lansdorf
Position: Housing Inspector
Tenure: 14 years

Task/Activity	Frequency (D,W,M,Q, Y)	Time Required (Hrs)	Typical Workload/ # of Items	Input or Source	Output or Disposition	Monthly Hours	Daily Hours
Schedule plumbing inspections	D	1.5	10 to 15	Phone calls from customers	Inspection scheduled	32.64	1.5
Daily filing	D	.5	10 to 20 filed	Copies of Applications/Permits	Record keeping	10.88	.5
Conduct inspections	D	5 to 6 hours	10 to 15 inspections	Plumbing permits / inspector's job cards	Approve permits, reinspections, issue Correction Notices	119.68	5.5
Conduct 3-R inspections	W	1.5	2 to 3	Customer	Condo conversions	6.53	.3
Investigate complaints & write-ups	D	.5	1	Calls and letters from the public, referrals from other Divisions, departments, Mayor's office, Board of Supervisors, and etc.	Abatement, issue Correction Notice, issue Notice of Violation	10.88	.5
Participate in staff/safety meetings	Bi-weekly	1	1	Mandatory state safety training, Division issues	Satisfy safety training requirements, Divisional communication	2.18	.1
Answer customer inquiries	D	.5	2 to 4	Customer inquiries – walk-ins, phone calls	Customer service	10.88	.5
Gas up car and car wash	W	1	1	Car maintenance	Car maintenance	4.35	.2
					Total	198.02	9.1

Inspection Divisions

Division:	Housing Inspection Services Division
Name:	Paul Lansdorf
Position:	Housing Inspector
Tenure:	14 years

Task/Activity	Frequency (D,W,M,Q, Y)	Time Required (Hrs)	Typical Workload/ # of Items	Input or Source	Output or Disposition	Monthly Hours	Daily Hours
Schedule plumbing inspections	D	1.5	1	Phone calls from customers	Inspection scheduled	32.64	1.5
Daily filing	D	.5	12 to 20	Copies of Applications/Permits	Record keeping	10.88	.5
Conduct plumbing inspections	D	5 to 6 hours	10 to 12	Plumbing permits / inspector's job cards	Approve permits, reinspections, issue Correction Notices	119.68	5.5
Conduct 3-R inspections and report write-ups	M	3	2	Customer	Condo conversions	3	.14
Participate in staff/safety meetings	Bi-weekly	2	1 – staff 1 – safety	Mandatory state safety training, Division issues	Satisfy safety training requirements, Divisional communication	4.35	.2
Gas up car and car wash	Bi-weekly	1	1	Car maintenance	Car maintenance	2.18	.1
Complaint letter writing	W	2	3 to 4 complaints	Public	Customer service	8.70	.4
Answer customer inquiries	D	.5	3 to 4	Customer inquiries – walk-ins, phone calls	Customer service	10.88	.5
Attend technical training	Y	8	1	From Chief Inspector	Keep up with industry changes	.67	.03
					Total	192.98	8.87

Inspection Divisions

Division:	Housing Inspection Services Division
Name:	Paul Lansdorf
Position:	Housing Inspector
Tenure:	14 years

Task/Activity	Frequency (D,W,M,Q, Y)	Time Required (Hrs)	Typical Workload/ # of Items	Input or Source	Output or Disposition	Monthly Hours	Daily Hours
Schedule complaints and routine inspections	D	.5	1 to 3	Calls, letters from the public, referrals from other Divisions, departments, Mayor's office, list of apartments and hotels in the district	Inspection schedule	10.88	.5
Conduct inspections	D	5	6 to7	Complaints, routine inspections	Abatement, apartment/hotel ratings, issue Notice of Violation	108.8	5
Answer customer inquiries	D	1	20 calls	Customer inquiries – walk-ins, phone calls	Customer service	21.76	1
Office work (input paperwork)	D	2	Various	Paperwork collected from inspections conducted during the day	Daily activities report recorded in Oracle System, letters written to property owners, build up database for routine inspections	43.52	2
Staff/safety meetings	M	1 to 2	1	Mandatory state safety training, Division issues	Satisfy safety training requirements, Divisional communication	1.5	.07
					Total	186.46	8.57

Inspection Divisions

Division: Housing Inspection Services Division
Name: Paul Lansdorf
Position: Housing Inspector
Tenure: 14 years

Task/Activity	Frequency (D,W,M,Q, Y)	Time Required (Hrs)	Typical Workload/ # of Items	Input or Source	Output or Disposition	Monthly Hours	Daily Hours
Conduct routine inspections	D	1.8	4	List of apartments/hotels in the district	Property rated, access into the building denied, write letter to property owner requesting access, inspection of building exterior, issue Notice of Violation	39.17	1.8
Conduct complaint inspections	D	.9	2	Public, referrals from other Divisions, departments, and Mayor's office	Abatement, issue Notice of Violation	19.58	.9
Conduct energy inspections	M	.45	1	Request from the public	Write-up inspection	.45	.02
Residential hotel annual inspections	Y	30	20			2.5	.12
Public phone inquiries	D	1	10	Public	Customer service	21.76	1
Staff/safety meetings	M	3	2	Mandatory state safety training, Division issues	Satisfy safety training requirements, Divisional communication	3	.14
Technical training	Y	8	2	From Chief Inspector	Keep up with code changes	.67	.03
Office work (input paperwork)	D	4	Various	Paperwork collected from inspections conducted during the day	Daily activities report recorded in Oracle System, letters written to property owners, build up database for routine inspections	87.04	4
					Total	174.17	8.01

Inspection Divisions

Division: Housing Inspection Services Division
Name: Patrick McKenzie
Position: Senior Housing Inspector
Tenure: 6 years

Task/Activity	Frequency (D,W,M,Q, Y)	Time Required (Hrs)	Typical Workload/ # of Items	Input or Source	Output or Disposition	Monthly Hours	Daily Hours
Senior office duty	D	4.5	--	Available to answer customer inquiries at the counter	Customer service	97.92	4.5
Answer customer inquiries	D	.5	4 calls	Customer inquiries – phone calls	Customer service	10.88	.5
Review dailies/ consult w/ inspectors	D	2	6 - daily	Daily activities of district inspectors	Monitor performance of the district inspectors	43.52	2
Review Director's Hearing referrals and billings	W	.2	6	Cases managed by district inspectors	Resolution on outstanding cases	.87	.04
Residential hotel audit	W	.5	Varies			2.17	.1
Director's Hearing representative	W	2	10 to 15 cases			8.7	.4
Field inspections	W	1	1	Complaints, routine inspections	Abatement, apartment/hotel ratings, issue Notice of Violation	4.35	.2
Staff meetings/safety training	Bi-weekly	2	1	Mandatory state safety training, Division issues	Satisfy safety training requirements, Divisional communication	4.35	.2
Senior staff meetings	Bi-weekly	1.5	1			3.26	.15
Weekly reports	W	1	1	Input from district inspectors	Report to Chief Inspector	4.35	.2
Respond to Director's letters	M	1	2 letters	Letters from the public	Answer inquiries, customer serviced	1	.05
Office duty scheduling	M	1	1	Staff schedules	Scheduling/staffing	1	.05

Inspection Divisions

Division: Housing Inspection Services Division
Name: Patrick McKenzie
Position: Senior Housing Inspector
Tenure: 6 years

Task/Activity	Frequency (D,W,M,Q, Y)	Time Required (Hrs)	Typical Workload/ # of Items	Input or Source	Output or Disposition	Monthly Hours	Daily Hours
City attorney referral update	M	.5	3	Cases managed by district inspectors	Referred to city attorney	.5	.02
Residential hotel assessments	Q	12	400 assessments			4	.18
Abatement billing audit	Q	1	6			.33	.015
HIS quarterly report	Q	5	1	Input – from weekly and monthly reports	Output – to Chief for review	1.66	.07
Standard report	Q	.5	6			.17	.01
Staff meeting scheduling	Y	1	1			.08	.004
Director's Hearing scheduling	Y	1	1			.08	.004
Training coordinator	Y	4	--			.33	.015
Conduct training	Y	6	2			.5	.02
Attend technical training	Y	8	1	From Chief Inspector	Keep up with code changes	.66	.03
					Total	190.68	8.758

Inspection Divisions

Division: Building Inspection Division
Name: Andrew Greene
Position: Senior Building Inspector
Tenure: 16 years

Task/Activity	Frequency (D,W,M,Q, Y)	Time Required (Hrs)	Typical Workload/ # of Items	Input or Source	Output or Disposition	Monthly Hours	Daily Hours
Processing / reviewing daily activities reports	D	3	7	Daily activities report from district inspectors	Monitor the performance of the district inspectors	65.28	3
Complaints	D	2	Various	Public, referrals from other Divisions, departments, the Mayor's office	Abatement, issue Correction Notice, Notice of Violation	43.52	2
Inspections – design	D	2	3			43.52	2
Phone complaints	D	1	Various	Public	Input into Oracle System, route complaint to the appropriate district inspector	21.76	1
Staff meeting / safety training	Bi-weekly	1	1	Mandatory state safety training, Division issues	Satisfy safety training requirements, Divisional communication	2.17	.1
Code training	Y	24	--	From Chief Inspector	Keep up with code and industry changes	2	.09
					Total	178.25	8.19

Inspection Divisions

Division:	Building Inspection Division
Name:	Wellington Wong
Position:	Building Inspector
Tenure:	2 years

Task/Activity	Frequency (D,W,M,Q, Y)	Time Required (Hrs)	Typical Workload/ # of Items	Input or Source	Output or Disposition	Monthly Hours	Daily Hours
Office work (phone calls, computer, daily reports)	D	2	15 calls/ customer visits	Various	Data collection, schedule inspections, research	43.52	2
Staff meeting / safety training	Bi-weekly	1	1	Mandatory state safety training, Division issues	Satisfy safety training requirements, Divisional communication	2.17	.1
Field inspections	D	5.5	10	Inspector's job cards	Approve permits, issue Correction Notices, answer inquiries from contractors	119.68	5.5
Complaint investigations	D	.5	1	Public, referrals from other Divisions, departments, and Mayor's office	Abatement, issue Correction Notice, Notice of Violation	10.88	.5
Overtime (as requested by contractors)	Bi-weekly	4	2	Customer requests	Customer service, approve permits, issue Correction Notices	8.70	.4
Code Training	Y	24	3	From Chief Inspector	Keep up with code and industry changes	2	.09
					Total	186.95	8.59

Inspection Divisions

Division: Building Inspection Division
Name: Leo McFadden
Position: Building Inspector
Tenure: 1 year and 8 months

Task/Activity	Frequency (D,W,M,Q, Y)	Time Required (Hrs)	Typical Workload/ # of Items	Input or Source	Output or Disposition	Monthly Hours	Daily Hours
Scheduling / organizing daily inspections	D	2	15	Various	Data collection, schedule inspections, research	43.5	2
Site inspections	D	5	15	Inspector's job cards	Approve permits, issue Correction Notices, answer inquiries from contractors	108.8	5
Staff meeting / safety training	Bi-weekly	1	1	Mandatory state safety training, Division issues	Satisfy safety training requirements, Divisional communication	2.17	.1
Complaint investigations	W	2	4	Public, referrals from other Divisions, departments, and Mayor's office	Abatement, issue Correction Notice, Notice of Violation	8.70	.4
Overtime (Saturday inspections)	Every 6 weeks	4	Various – complaints	Public, referrals from other Divisions, departments, and Mayor's office	Abatement, issue Correction Notice, Notice of Violation	2.9	.13
Training seminars	Y	24	3 to 4	From Chief Inspector	Keep up with code and industry changes	2	.09
					Total	168.07	7.72

Inspection Divisions

Division: Building Inspection Division
Name: Edward Fang
Position: Building Inspector
Tenure: 25 years. (12 years as Civil Engineer, 13 years as Building Inspector)

Task/Activity	Frequency (D,W,M,Q, Y)	Time Required (Hrs)	Typical Workload/ # of Items	Input or Source	Output or Disposition	Monthly Hours	Daily Hours
Office work (schedule inspections, computer work)	D	1	Schedule 4 inspections	Various	Data collection, schedule inspections, research	21.76	1
Customer services (phone & counter duties)	D	1	Various	Customer inquiries – walk-ins, phone calls	Answer customer inquiries, customer service	21.76	1
Conduct building inspections	D	6	13	Inspector's job cards	Approve permits, issue Correction Notices, answer inquiries from contractors	130.56	6
Overtime (Saturday inspections)	Every 6 weeks	4	Various – complaints	Public, referrals from other Divisions, departments, and Mayor's office	Abatement, issue Correction Notice, Notice of Violation	2.89	.13
Staff meeting / safety training	Bi-weekly	1	1	Mandatory state safety training, Division issues	Satisfy safety training requirements, Divisional communication	2.17	.1
Code training	Y	24	3 to 4	From Chief Inspector	Keep up with code and industry changes	2	.09
Investigate complaints	W	1	5	Public, referrals from other Divisions, departments, and Mayor's office	Abatement, issue Correction Notice, Notice of Violation	4.35	.2
Emergency response urban & search rescue	(On call 24 hours, DPW – hot line & from Fire & Police Dept.)	--	--	Various	Public safety		

Inspection Divisions

Division: Building Inspection Division
Name: Edward Fang
Position: Building Inspector
Tenure: 25 years. (12 years as Civil Engineer, 13 years as Building Inspector)

Task/Activity	**Frequency (D,W,M,Q, Y)**	**Time Required (Hrs)**	**Typical Workload/ # of Items**	**Input or Source**	**Output or Disposition**	**Monthly Hours**	**Daily Hours**
Plan checks on permits	Bi-weekly	8	10			17.4	.8
Special project inspections – jails, juvenile facilities	Y	10	8	Special projects	Safety and facility inspections	.83	.04
					Total	203.72	9.36

Plan Check

Division: Mechanical Plan Check
Name: Arthur Bree
Position: Mechanical Plan Checker
Tenure: 9 Years

Task/Activity	Frequency (D,W,M,Y)	Time Required (Hrs)	Typical Workload/ # of Items	Input or Source	Output or Disposition	Monthly Hours	Daily Hours
Plan Review Duties							
Plan review – small (≤ $100,000)	M	1.5	2	Applicant plans	Approved plans with revisions	3.0	0.2
Plan review – mid-sized ($100,000 – $1 million)	M	6	3	Applicant plans	Approved plans with revisions	18.0	0.9
Plan review – large, non-smoke control (>$1 million)	M	12	5	Applicant plans	Approved plans with revisions	60.0	3.0
Plan review – large, Smoke control (>$1 million)	Y	120	3	Applicant plans	Approved plans with revisions	7.2	0.4
Attend major project review meetings	W	2	2	NA	NA	16.0	0.8

Plan Check

Division: Mechanical Plan Check
Name: Arthur Bree
Position: Mechanical Plan Checker
Tenure: 9 Years

Task/Activity	Frequency (D,W,M,Y)	Time Required (Hrs)	Typical Workload/ # of Items	Input or Source	Output or Disposition	Monthly Hours	Daily Hours
Counter Duties							
Counter Duty	W	1	1	NA	NA	4.0	0.2
Customer Inquiries							
Answer customer code questions on phone, at counter	D	0.5	2	Customer inquiries	Referral or resolution of customer issue	20.0	1.0
Code Interpretation							
Prepare weekly report of all code questions received	W	0.5	1	Code questions	Report	2.0	0.1
Meetings / Administration							
Administrative assistance to manager	D	1	1	NA	NA	20.0	1.0
Attend major plan check division meetings	M	1	1	NA	NA	1.0	0.1
TOTAL						151.2	7.6

Plan Check

Division: Major Projects Plan Check
Name: Kung-Kay Chiu
Position: Major Projects Plan Checker (Engineer)
Tenure: 9 Years

Task/Activity	Frequency (D,W,M,Y)	Time Required (Hrs)	Typical Workload/ # of Items	Input or Source	Output or Disposition	Monthly Hours	Daily Hours
Plan Review Duties							
Plan Review	W	20	1	Applicant plans	Approved plans with revisions	80.0	4.0
Pre-application meetings and research	W	2	2	Applicant plans prior to submission	Preliminary plan comments	16.0	0.8
Sub-division referral review	W	0.3	20	Sub-division plans	Reviewed plans	24.0	1.2
Counter Duties							
Counter Duty (code interpretation)	W	0.5	4	Customer inquiries	Referral or resolution of customer issues	8.0	0.4
Customer Inquiries							
Answer customer code questions on phone	W	0.5	8	Customer inquiries	Code interpretation	16.0	0.8
Code Interpretation							
Update code, code ruling bulletin research and preparation	Q	8	1	New code rulings, interpretations	Updated bulletin on code changes	1.8	0.1

Plan Check

Division: Major Projects Plan Check
Name: Kung-Kay Chiu
Position: Major Projects Plan Checker (Engineer)
Tenure: 9 Years

Task/Activity	Frequency (D,W,M,Y)	Time Required (Hrs)	Typical Workload/ # of Items	Input or Source	Output or Disposition	Monthly Hours	Daily Hours
Meetings / Administration							
Arrange instructional seminars	M	3	1	NA	NA	3.0	0.2
Coordinate approval process of new methods	Q	16	1	NA	NA	3.6	0.2
Assist other departments	M	0.4	10	NA	NA	4.0	0.2
Other							
Emergency field response	Q	10	1	NA	NA	2.2	0.1
TOTAL						158.6	7.9

Plan Check

Division: Commercial Plan Check
Name: Dennis Dang
Position: Commercial Plan Checker
Tenure: 13 Years

Task/Activity	Frequency (D,W,M,Y)	Time Required (Hrs)	Typical Workload/ # of Items	Input or Source	Output or Disposition	Monthly Hours	Daily Hours
Plan Review Duties							
Plan Review at desk	D	4	1	Applicant plans	Approved plans with revisions	80.0	4.0
Review special inspection reports	W	0.5	2	Reports on inspections of special structural modifications requiring additional review	Notification of violations if inspections reveal inconsistent construction methods	4.0	0.2
Counter Duties							
Counter Duty	D	1	3	NA	NA	60.0	3.0
Customer Inquiries							
Answer customer code questions	D	0.5	2	Customer inquiries	Referral or resolution of customer issue	20.0	1.0
Meetings / Administration							
Attend technical training	Y	8	1	NA	NA	0.2	0.01
TOTAL						164.2	8.2

Plan Check

Division: Residential Plan Check
Name: Thomas Le
Position: Residential Plan Checker
Tenure: 6 Years

Task/Activity	Frequency (D,W,M,Y)	Time Per Item (Hrs)	Typical Workload/ # of Items	Input or Source	Output or Disposition	Monthly Hours	Daily Hours
Plan Review Duties							
Review plans	D	0.75	4	Applicant plans	Approved plans with revisions	60.0	3.0
Pre-application review	Q	2	3	Applicant plans prior to submission	Preliminary plan comments	1.3	0.1
Meet with design professionals	W	0.75	2	Designers seeking clarification of plan comments	Clarification of plan revisions needed to comply with code	6.0	0.3
Counter Duties							
Counter Duty	W	16	4	NA	NA	64.0	3.2
Customer Inquiries							
Answer customer code questions on phone	D	0.05	10	Customer inquiries	Code interpretation	10.0	0.5
Meetings / Administration							
Assign plans to plan checkers	D	0.75	1	NA	NA	15.0	0.8
Attend training seminars	Q	6	1	NA	NA	1.3	0.1
Attend staff meetings	M	2.5	1	NA	NA	2.5	0.1
Prepare reports	W	1.5	1	NA	NA	6.0	0.3
TOTAL						166.2	8.3

Central Permit Bureau

Division: Central Permit Bureau
Name: Carolynn Tusch
Position: Manager
Tenure: 28 years

Task/Activity	Frequency (D,W,M, Q,Y)	Time Required (Hrs)	Typical Workload/ # of Items	Input or Source	Output or Disposition	Monthly Hours	Daily Hours
Supervision	D	2.4	N/A	N/A	N/A	52.2	2.4
Preparation of weekly reports	W	1	1	Data collection from CPB staff	Report to W. Wong on a weekly basis	4.35	.2
Attendance report	D	.25	1	Data collection from CPB staff	Report to W. Wong	5.44	.25
Scheduling of staff	D	.5	1	Data collection from CPB staff	Schedules to cover breaks, lunch, phones	10.88	.5
Preparation of quarterly reports	Q	24	1	Information from Administration and Finance (data on the number of permits issued, amount collected, number of permits processed)	Report to W. Wong/F. Chiu, information is included in the DBI's Quarterly Reports	8	.37
Sort/distribute mail and record checks received	D	1	1	Incoming mail	N/A	21.76	1
Monitor, collect, and log cash receipts	D	1	2	N/A	N/A	21.76	1
Answering phone calls from the public regarding filings/ applications	D	2 to 3	Numerous >10	Public	N/A	54.4	2.5
Update log book of demolitions filed or issued	D	1	Depends on the number of demolitions	Filing/applicant	Letters of notification sent out by One-Stop Permit	21.76	1
Interaction with various division managers	D	1	Various	N/A	N/A	21.76	1
Check address assignment for new buildings	D	1	1	Filing/public/applicant	Verify address on computer, block map, site inspections	21.76	1

Central Permit Bureau

Division:	Central Permit Bureau
Name:	Carolynn Tusch
Position:	Manager
Tenure:	28 years

Task/Activity	Frequency (D,W,M, Q,Y)	Time Required (Hrs)	Typical Workload/ # of Items	Input or Source	Output or Disposition	Monthly Hours	Daily Hours
Changes or additions of address assignments for existing buildings	Twice a week	1	1	Filing/public/applicant	Sent out certificate to applicant, sent copies to Assessor's Office, U.S. Post Office, and 911 system	8.7	.4
Responding to correspondences from the public	M	2 to 3	1	Public	Copy to DBI records-Director's Office	2.5	.12
					Total	255.27	11.74

Central Permit Bureau

Division:	Central Permit Bureau
Name:	Fidel Del Rosario
Position:	Senior Clerk, Typist
Tenure:	2 years, 7 months

Task/Activity	**Frequency (D,W,M,Q, Y)**	**Time Required (Hrs)**	**Typical Workload/ # of Items**	**Input or Source**	**Output or Disposition**	**Monthly Hours**	**Daily Hours**
Accept filing applications	D	1	10	Plan check review	Applications routed to specific stations for review	21.76	1
Issue building permits	D	1	10	All stations signed off	Building permit paid and issued	21.76	1
Issue plumbing and electrical permits	D	2	80 to 100	Applications filed by contractors	Electrical/plumbing permits issued	43.52	2
Notification of structure additions	D	3	6	Issuance of building permit, Calls from the public or customers	Notifications are sent – application plans are placed on a 15 day hold, Answer customer inquiries	65.28	3
Phone duty	D	1	Various	Calls from the public or customers	Answer customer inquiries	21.76	1
					Total	174.08	8

Central Permit Bureau

Division: Central Permit Bureau
Name: Hareggewain Shawl
Position: Clerk, Typist
Tenure: 2 years, 6 months

Task/Activity	Frequency (D,W,M,Q, Y)	Time Required (Hrs)	Typical Workload/ # of Items	Input or Source	Output or Disposition	Monthly Hours	Daily Hours
Issue building permits	D	4	25	All stations signed off	Building permit paid and issued	87.04	4
Filing and submitting a permit	D	2	25	Plan check review	Applications routed to specific stations for review	43.52	2
Issue plumbing and electrical permits	D	1	20	Applications filed by contractors	Electrical/plumbing permits issued	21.76	1
Notification of structural additions, Phone duty	D	1	2, various	Issuance of building permit, Calls from the public or customers	Notifications are sent – application plans are placed on a 15 day hold, Answer customer inquiries	21.76	1
City job / Sidewalk permits	D	1	2	Filings	Journal entries transferred to DBI account, call customers to bring journal entries	21.76	1
					Total	195.84	9

Central Permit Bureau

Division: Central Permit Bureau
Name: Garland Simpson
Position: Senior Clerk, Typist
Tenure: 4 Years

Task/Activity	Frequency (D,W,M,Q, Y)	Time Required (Hrs)	Typical Workload/ # of Items	Input or Source	Output or Disposition	Monthly Hours	Daily Hours
Issue building, plumbing and electrical permits	D	7	150	Applications filed by contractors	Building, electrical/plumbing permits issued	152.32	7
Phone duty and process mail in permits for electrical and plumbing (these two tasks are performed concurrently)	D	1	Various – number of phone calls 30 – mail ins per day	Calls from the public or customers Electrical/plumbing applications received through mail	Answer customer inquiries Process the issuance of electrical/plumbing permits	21.76	1
					Total	174.08	8

One Stop Permits

Division: One-Stop Permits
Name: Max Putra
Position: Permit Coordinator
Tenure: 1 year (current position)

Task/Activity	Frequency (D,W,M,Y)	Time Required (Hrs)	Typical Workload/ # of Items	Input or Source	Output or Disposition	Monthly Hours	Daily Hours
Screen applications	W	0.75	10	Permit application submitted by customer	Application accepted or returned with request for additional documentation, copies	1.5	1.5
Accept permit applications for screening	W	1	6	Permit application submitted by customer???	Application ready for screening appointment???	24	1.2
Transfer comments from copies to original permit plans	W	1	10	Multiple plan copies with written comments by plan reviewers in different city departments	Single original set of plans with comments from all departments	40	2
Answer customer inquiries	D	0.15	8	Customer calls	Referrals or resolution of customer concern	24	1.2
Perform quality control checks of approved applications	D	0.2	5.5	Approved plans, including some with errors (from regular, sequential plan check process)	Approved plans with necessary signatures, stamps and other errors corrected	22	1.1
Take in applicant revisions to plans	W	0.5	6	Applicant revisions to plans in response to plan checker comments	Revised plans ready for review by plan checker	12	0.6
Provide training	Y	1.5	2	NA	NA	0.06	0.003
Participate in training	Q	4.5	2	NA	NA	3	0.15
Attend staff meetings	M	1.5	1	NA	NA	1.5	0.075
Research applications per DBI staff requests	M	2	1	NA	NA	2	0.1
TOTAL						158.56	7.92

One Stop Permits

Division: One-Stop Permits
Name: Janet Yip
Position: Permit Clerk
Tenure: 15 months (current position)

Task/Activity	Frequency (D,W,M,Y)	Time Required (Hrs)	Typical Workload/ # of Items	Input or Source	Output or Disposition	Monthly Hours	Daily Hours
Perform quality control checks of approved applications	D	2	4	Approved plans, including some with errors (from regular, sequential plan check process)	Approved plans with necessary signatures, stamps and other errors corrected	40	2
Prepare demolition permit (word processing)	D	2.5	1	Demolition permit applications accompanying new construction permit applications	Demolition permits	50	2.5
File applications (prepare documents, deliver)	D	.6	2	Permit applications and plans	File folder with application, necessary forms and documentation	12	0.6
Log out plans	D	.4	3	NA	NA	9	0.45
Issue permits	D	.4	2	Approved permit application	Printed permit	8	0.4
Check revisions and addendums to plans	D	.4	4	Revisions and addendums submitted by applicant	Plans with revisions and addendums ready for plan checker review	8	0.4
Prepare re-roofing permits	D	.3	3	Applications for re-roofing	Printed re-roofing permits	6	0.3
Responding to customer inquiries	D	.2	25	Customer calls	Referrals or resolution of customer concerns	0.625	0.625
Deliver plans	D	.4	1	Application with comments from plan checkers	Applications transferred to One-Stop office	8	0.4
Secure signatures from plan checkers	D	.4	5	Unsigned plan originals	Signed plan originals	10	0.5

One Stop Permits

Division: One-Stop Permits
Name: Janet Yip
Position: Permit Clerk
Tenure: 15 months (current position)

Task/Activity	Frequency (D,W,M,Y)	Time Required (Hrs)	Typical Workload/ # of Items	Input or Source	Output or Disposition	Monthly Hours	Daily Hours
Attend technical training	Q	**4**	**1**	**NA**	**NA**	1.2	0.06
Attend staff meetings	**M**	**1.5**	**1**	**NA**	**NA**	0.075	1.5
TOTAL						**166.2**	**8.31**

One Stop Permits

Division: One-Stop Permits
Name: Sonia Alarcon
Position: Permit Clerk
Tenure: 15 months (current position)

Task/Activity	Frequency (D,W,M,Y)	Time Required (Hrs)	Typical Workload/ # of Items	Input or Source	Output or Disposition	Monthly Hours	Daily Hours
Perform quality control checks of approved applications	D	0.4	4	Approved plans, including some with errors (from regular, sequential plan check process)	Approved plans with necessary signatures, stamps and other errors corrected	32	1.6
Prepare demolition permit (word processing)	D	2.25	1	Demolition permit applications accompanying new construction permit applications	Demolition permits	45	2.25
File applications (prepare documents, deliver)	D	0.3	2	Permit applications and plans	File folder with application, necessary forms and documentation	12	0.6
Check revisions and addendums to plans	D	0.1	4	Revisions and addendums submitted by applicant	Plans with revisions and addendums ready for plan checker review	8	0.4
Prepare re-roofing permits	D	0.2	3	Applications for re-roofing	Printed re-roofing permits	12	0.6
Responding to customer inquiries	D	0.1	10	Customer calls	Referrals or resolution of customer concerns	20	1
Deliver plans	D	0.4	1	Application with comments from plan checkers	Applications transferred to One-Stop office	8	0.4
Secure signatures from plan checkers	D	0.2	3	Unsigned plan originals	Signed plan originals	12	0.6
Attend technical training	Q	4	1	**NA**	**NA**	0.06	0.06
Attend staff mtgs	M	1.5	1	**NA**	**NA**	1.5	0.075
TOTAL						**151.7**	**7.585**

Appendix C

Benchmarking Profiles

Benchmarking Profiles

Explanation of the Appendix

Appendix C of this report contains profiles of those jurisdictions surveyed in the course of the benchmarking analysis. Each of these profiles contains the following information:

Table C –1 – Elements of Benchmarking Profiles

Profile Element	Comment
Population	Population in the jurisdiction served
Department	Title of the department and division where plan check and inspection functions are performed
Building Inspection Annual Volumes	Most recently available annual activity volumes (or estimates) for major building inspection activities
Summary of Performance Measurement and Business Practices	Information on the following for inspections and plan review functions: ▪ Performance Targets ▪ Performance Target Development ▪ Management Utilization

Profiles of Performance Measurement in Selected Jurisdictions – California

County of Santa Clara, CA

Population:
1,641,215

Department:
Department of Building Inspection Land Development and Surveying Office

Building Inspection Annual Volumes:
28,567 permits issued

13,037 plans reviewed

18,209 inspections performed

Summary of Performance Measurement and Business Practices:

Inspections:

All inspectors have multiple certifications and perform combination inspections. Combination inspection is considered the most efficient method of minimizing the long distances and times necessary to travel between inspection sites in unincorporated areas. Inspectors commonly drive in excess of 120 miles per day.

Management utilizes only one performance measure for the inspectors.

Performance Measure	Performance Target
Percentage Inspection Responses within 24 Hours*	90% 99% level achieved

*For those requests made by 3:00 PM of the previous day

Performance Target Development

Performance target levels are based on historic department experience and are regularly exceeded.

Management Utilization

Management does not rely on the 24-hour response time performance indicator. Due to the small staff size, management views senior inspector oversight as adequate in identifying inefficiencies and monitoring employee performance. Complaints are used as an additional, informal indicator of quality.

Plan Review

The County employs five plan checkers for reviews. Of the five, two hold combination certifications while the remaining are craft specific.

	Performance Targets by Plan Review Type		
Performance Measure	**Residential**	**Non-Residential****	**OTC**
Plan Review Turn Around Time	30 Calendar Days Target 90%	45 Calendar Days Target 90%	
Percentage of OTC Customers Wait Times under 20 Minutes			Target 90%

**Very few commercial plans are reviewed.

Performance Target Development

Performance target levels were established by department management based on historic data and surveys of performance measurement in neighboring jurisdictions

Management Utilization

Directors and management meet on a monthly basis to review performance measurement and achievement of goals. Based on the information obtained, management also determines whether the measurements require adjustments or modifications.

Profiles of Performance Measurement in Selected Jurisdictions – California

County of San Diego, CA

Population:
2,780,592

Department:
Department of Planning and Land Use Building Permits

Building Inspection Annual Volumes:
10,000 permits issued

1783 plans reviewed

35,014 inspections performed

Summary of Performance Measurement and Business Practices:

Inspections:

All inspectors have multiple certifications and perform combination inspections on either residential or commercial projects. Combination inspection is considered the most efficient method of minimizing long distances that often total in excess of 200 miles per day.

	Performance Targets by Inspection Type	
Performance Measure	**Residential**	**Commercial**
Inspections per Inspector per Day	8.4* Actual 20-25/day	8.4* Actual 12-15/day
Percentage Inspection Responses within 24 Hours*	100% Target achieved	100% Target achieved

*Includes responses to inspections in the rural county areas exceeding 24 hours but meeting scheduled time frames.

Performance Target Development

Performance measures for inspections were developed approximately 15 years ago and have not been updated.

Management Utilization

Current performance targets are regularly exceeded and are seldom used by management. A review of current measures and targets is currently in place.

Plan Review

The County employs five certified engineers of whom only one performs electrical, mechanical and plumbing reviews. All other engineers review plans for compliance with life, structural and safety codes. Approximately 85% of the plans reviewed and inspections performed are for residential properties.

	Performance Targets by Plan Review Type	
Performance Measure	**Residential**	**Commercial**
Plan Review Turnaround Time	10 day Target 80-85%*	15 day Target 80-85%*

*The County is currently unable to meet 80-85% target level as a result of code changes effective 7/1/99.

Performance Target Development

Performance measures for inspections were developed approximately 15 years ago and have not been updated.

Management Utilization

A review of current measures and targets is currently in place along with the implementation of a new permit tracking system. Current plan review turnaround times are monitored monthly and contract services are employed when times fall substantially below targets. This can occur during periods of high construction activity.

Management Initiatives:

Audits of Inspection Quality

To ensure inspections are conducted in a time efficient and thorough manner, the Department has established a program of complete and spot audits.

Complete Audits

- On a given day without notice a Senior Inspector re-performs all inspections and retraces the prior day's route of a selected inspector.
- Both the quality of the inspection and the thoroughness and accuracy of the recorded data including driving times and miles claimed are reviewed.
- All inspectors undergo a complete audit once annually.

Spot Audits

- A Senior Inspector selects 5 approved permits (completed final inspections) at random on a monthly basis, reviewing paperwork and re-performing the inspection to assess the quality of the work.

Following the complete or spot audits, the auditees meet with the Director and review their performance. Audit are used for reward or training purposes. Management considers omissions by audited inspectors as strong indications of those areas in which all inspectors require additional training.

Profiles of Performance Measurement in Selected Jurisdictions – California

City of San Diego, California

Population:
1,254,000

Department:
Planning and Development Review Department

Building Inspection Annual Volumes:
30,000 permits issued

3740 plans checked

162,327 inspections performed

Summary of Performance Measurement and Business Practices:

Inspections

San Diego employs both combination and specialty inspectors. Combination inspectors focus their efforts on one to two family residential sites, while specialty structural, electrical and mechanical inspectors handle multi-family residential and all commercial structures. Only inspection response times are tracked.

Performance Measure	Target Performance Level
Percentage Inspection Responses within 24 Hours	95%*

*Target performance level met after recent staff increases. Prior to this, performance levels averaged 90%.

In addition to measuring response times, San Diego utilizes two additional performance indicators for inspection related activities.

Additional Inspection-Related Measures

Performance Measure	Target Performance Level
Percentage Of Technical Support Provided To Inspection Staff Within 2 Working Days	99% Target met.
Percentage Of Inspection Requests Scheduled within a Telephone Wait Time of 2 Minutes	100% 97% average of target met.

Target Development

The Department chose to rely on a single performance measure for inspection services as a result of a recent, comprehensive review process to produce more customer-focused measures of performance.

Management Utilization

If performance falls below the 95% target level for a prolonged period of time, staff increases are considered. (Due to budget constraints throughout much of the 1990s, staff was not increased despite consistent performance at the 90% level.)

Supervisors monitor individual workloads and adjust workloads on a daily basis. An automated system assigns voice mail requests for inspections to the appropriate geographic districts. Inspectors are responsible for inspections in their assigned districts. Supervisors review computer-assigned workloads per inspector at the start of the business day, redistributing inspection workload as necessary. Geographic district boundaries and inspector assignments are readjusted periodically for fast growth, new development areas.

Plan Review

No specific individual performance measures or targets are maintained for plan review personnel. Plan review personnel are divided into three groups that assess compliance with different codes – structural, electrical and plumbing/mechanical.

Total actual times for plan approval (inclusive of all city departments for which approval is required) are outlined below by plan type. Separate plan review times for the construction code plan checkers are not tracked.

Plan Check Group	Target Review Times by Plan Type*		
	Commercial	Multi-Family	Residential (1-2 Families)
Structural	30 days	30 days	8 days
Electrical	6 days	6 days	NA
Plumbing/Mechanical	11 days	11 days	8 days
	Satisfactory performance level is 90% of target.		

*Review times do not include customer time taken to revise plans after initial plan review.

Of the 30,000 plans approved annually, some 25,000 are performed over-the-counter (OTC), or approximately 83%.

In addition to measuring plan review times, San Diego utilizes two additional performance indicators for plan review related activities. Both focus on importance of providing rapid information on code interpretation issues to customer groups.

Additional Plan Review-Related Measures

Performance Measure	Target Performance Level
Percentage Of Technical Inquiry Questions Answered within the Same Day	90% Target met.
Percentage of Technical Interpretations Published within 60 Days of a Policy Issue Referral	80% Target met.

Target Development

The Department developed target performance levels for plan review in consultation with customer groups and construction industry organizations.

Management Utilization

Management reviews performance levels on a quarterly basis. If performance falls below the 90% target level in a code group/plan type category for a 3-month period, management takes corrective steps including increases to allowed overtime, reviews of individual staff performance and assessment of total staff levels. Performance of individual plan checkers is monitored at the supervisory level.

Management Initiatives:

Development Plan Managers

San Diego utilizes Development Plan Managers as a single point of contact for customers with plans requiring public hearings or plan reviews by multiple city departments. Staff employed in these roles come from varied backgrounds – permit clerical staff to ex-plan reviewers – and handle applications of differing complexity. In consultation with the customer, the Plan Manager assesses the completeness of the application, indicates additional documentation necessary for submission, and provides the customer with an estimated completion time for the application.

Customer Outreach

Management also solicits customer input by several means. In addition to customer suggestion forms available to walk-in customers, the department sends a customer survey to commercial customers and homebuilders on an annual basis, and convenes sessions of a long-term customer focus group on a periodic basis.

Homeowners' Night

To accommodate do-it-yourself homeowners, the department is open one weekday evening from 5 to 7 p.m. primarily for over the counter permit approvals.

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Profiles of Performance Measurement in Selected Jurisdictions – California

City of San Jose, California

Population:
910,900

Department:
Department of Planning, Building and Code Enforcement

Building Inspection Annual Volumes (FY 98/99 estimates):
41,006 permits issued

7,927 plans checked

228,101 inspections performed

Summary of Performance Measurement and Business Practices:

Inspections

The City of San Jose employs combination inspectors for all inspections, with staff specializing in either residential or commercial structures.

Performance Measure	**Target Performance Level**	
Percentage Inspection Responses within **24** Hours	95% Target met.	95% Target met.
Percentage Inspection Responses within **48** Hours	100% Target met.	100% Target met.

Performance Target Development

Performance measures were developed by management in consultation with staff to quantify the need for requested budget increases to the San Jose City Council. These measures have been developed further for internal use.

Management Utilization

Performance indicators are reviewed on a monthly basis, and are reported bimonthly to the City Council. Management utilizes these measures to gauge performance on both a group and individual level. If performance falls below target levels, several options exist, including refresher training, review of inspection district boundaries, and in the long term, reviewing necessary staff levels.

Plan Review

Target turnaround times are specified by plan type for the initial review only.

Structural - Residential Plan Review	**Performance Targets by Plan Type**					
Performance Measure	**1 Story Additions**	**2 Story Additions**	**Custom Homes**	**Tract**	**Multi-Family**	**Misc.**
Calendar Days for Initial Plan Check	10 days	14 days	21 days	28 days	35 days	14 days

Structural - Commercial Plan Review	**Performance Targets by Plan Type**		
Performance Measure	**Tenant Improvements**	**Minor Structural**	**New Construction**
Calendar Days for Initial Plan Check	11 days	18 days	32 days

Additional Plan Review – All Plan Types	**Performance Targets by Review Type**		
Performance Measure	**Plumbing**	**Mechanical**	**Electrical**
Calendar Days for Initial Plan Check	14 days	14 days	4 days

Performance Target Development

Performance measures were developed by management in consultation with staff to quantify the need for requested budget increases to the San Jose City Council. These measures have been developed further for internal use.

Management Utilization

Performance indicators are reviewed on a monthly basis, and are reported bimonthly to the City Council. Indicators are used to track staff productivity but staff is not held accountable for fulfillment of performance targets on an individual basis. Rather, lapses in performance are viewed as indicators of the need for training or a review of plan check technique.

San Jose encourages the development of “specialists” on an informal basis among plan check staff. Therefore, the ‘mix’ of plans being assigned to any one plan checker over a period of time is unlikely to be directly comparable, complicating any purely quantitative assessment of individual productivity. Management solicited staff acceptance of performance measures and their usage prior to their introduction.

Management Initiatives:

Public Reporting of Worst Turnaround Times for Plan Review

While management continues to focus on average turnaround times for internal purposes, it has found it advantageous to report the worst turnaround times in public forums. San Jose has adopted this procedure in response to frequent comments by customers with plan review times exceeding the average. This has allowed it to shift the focus from a ‘failure’ to meet the average to the goal of shortening the longest plan review times.

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Profiles of Performance Measurement in Selected Jurisdictions – California

City of Sunnyvale, California

The City of Sunnyvale uses performance measures in all of its city departments. Performance measures are linked to the budget process with the objective of increasing the cost effectiveness of providing city services. In 1994, the city was recognized for its performance budgeting efforts by Vice President Al Gore's commission on reinventing government.

Population:
132,900

Department:
Department of Building Inspection

Building Inspection Annual Volumes:

4881 permits issued

1191 plans checked

31,977 inspections performed (4831 stops made)

Summary of Performance Measurement and Business Practices:

City of Sunnyvale inspection and plan review staff perform both duties for designated geographic areas within the city. Staff members both review plans for construction before permits are issued and inspect builders' compliance with those plans during the construction process.

Inspections

Performance Measure	Target Performance Level
Percentage of Requested Inspections Performed as Scheduled	90% Target met.
Percentage of "First Available" Inspections Performed by Next Business Day	90% Target met.
Percentage of Audited Inspections Found to be Accurate	95% Target met.

During the year, approximately 10% of the inspections performed are audited at random by plan review/inspection staff working in different districts.

Plan Review

The city issues an average of 90% of its permits over-the-counter or within 24 hours. Approximately 66% of permit applications are for with re-roofing projects, water heater installations and other minor permits requiring no plan review. In addition, all counter staff are plan reviewers, allowing a higher proportion of plans to be checked over the counter.

All 'behind the counter' plan reviews are performed in a parallel, rather than sequential, process. Such reviews commonly involve completely new structures, second story additions and major tenant improvements.

Performance Measure	Target Performance Level
Average Working Days for all 'Behind the Counter' Plan Reviews	21 days*
Percentage of Audited Plan Reviews Found to be Accurate	95%

*Total time for all city department reviews required for permit

During the year, approximately 10% of the plan reviews performed are audited at random by other plan review/inspection staff working in different districts.

Profiles of Performance Measurement in Selected Jurisdictions – Out of State

City of Las Vegas, Nevada

Population:
452,000

Department:
Bureau of Building and Safety

Building Inspection Annual Volumes:
35,000 permits issued

6000 plans reviewed

350,000 inspections performed

Summary of Performance Measurement and Business Practices:

Inspections

No specific performance measures or targets are maintained for inspection personnel. All personnel are combination inspectors – conducting a variety of inspection types. Actual performance is as outlined below.

Performance Measure	Actual Performance Levels
Inspections per Inspector per Day	32 currently* 22-23 target*
Percentage Inspection Responses within 24 Hours	95% target 96.4% actual

*Approximately 60% of the inspection workload involve residential tract housing with minimal inspection time requirements.

Performance Target Development

Target performance levels were developed based on the department's historical experience.

Management Utilization

Workload adjustment is performed on a daily basis by division supervisors. An automated system assigns voice mail requests for inspections to the appropriate geographic districts. Inspectors are responsible for inspections in their assigned districts. Supervisors review computer-assigned workloads per inspector at the start of the business day, redistributing inspection workload as necessary. Geographic district boundaries and inspector assignments are readjusted periodically for fast growth, new development areas.

Plan Review

No specific performance measures or targets are maintained for plan review personnel. All personnel check a variety of plan types. Total actual times for plan approval (inclusive of all city departments for which approval is required) are outlined below by plan type. Separate plan review times for the Building and Safety Department are not tracked.

Plan Review Type	Total Actual Review Times by Plan Type
Residential Housing	32-33 working days
Commercial (New buildings)	40 working days
Tenant Improvements (up to 5000 sq. ft.)	14 working days
Minor Projects (Swimming pools, patio covers, etc.)	2 working days

No OTC plan checking is performed. However, for many minor projects, city-approved design plans are available requiring no plan check.

Target Development

Target performance levels were developed based on the department's historical experience.

Management Utilization

Plan review times are not utilized as a workload management tool. Supervisors review backlogs per plan reviewer on a weekly basis, and notify individual plan reviewers if their backlog levels are excessive.

Management Initiatives:

Express Plan Review – Intensive Single Meeting Format

Las Vegas provides developers with the opportunity to ensure compliance with all applicable construction codes in a single meeting through its Express Plan Review program. By appointment, members of the developers team meet jointly with a team of plan review professionals (including planning, land development and fire plan reviewers in addition to plumbing/mechanical, electrical and structural reviewers) to resolve all compliance issues. The meeting continues until all issues are resolved, or necessary revisions are found which cannot be accomplished within the meeting format.

Those using the Express Plan Review system are required to have any planning, zoning approvals before making appointments, and must submit a complete set of plans at least two weeks in advance.

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Profiles of Performance Measurement in Selected Jurisdictions – Out of State

City of Phoenix, Arizona

Population:
1.2 million

Department:
Development Services Department

Building Inspection Annual Volumes (FY 98/99 estimates):
27,000 permits issued

4000 plans checked

27,000 inspections performed

Summary of Performance Measurement and Business Practices:

Inspections

The City of Phoenix maintains separate commercial and residential inspection staff with each staff member cross-trained to assume combination inspection duties. Performance measures for each group are outlined in the table below.

Performance Measure	Commercial Inspection Target	Residential Inspection Target
Inspections per Inspector per Day	12 Target met.	18 Target met.
Percentage of Inspections Performed On Day Scheduled	90% Target met – 95.6% average	90% Target met – 95.6% average

Performance Target Development

Target levels for inspection performance measures are based on an 8-year-old management review involving time studies and work unit calculations. The review focused on such volume measures as numbers of inspections, stops and inspection request calls over a specific time period.

Management Utilization

Division managers monitor inspection performance measures on a weekly basis. If levels fall below target, management reviews workload volumes, the need for additional training for individual staff, and, if necessary, can utilize contract inspectors (primarily retired department inspectors) on a temporary basis.

Plan Review

The Department tracks the total time taken to review plans by all relevant city departments and has established target times for specific types of plans. These performance targets are outlined below.

Performance Measure	**Small Tenant Improvements**	**Large Plans** (5000 – 50,000 sq. ft. or $250,000 - $5 million)	**Extra Large Plans** (> 50,000 sq. ft. or > $5 million)	**Total - All Plans**
Percentage of Initial Reviews Within Target Time	90% Target: 14 calendar days	90% Target: 30 calendar days	90% Target: 45 calendar days	Target: 90%

Performance Target Development

Target levels for plan review performance measures are based on an 8-year-old management review involving time studies and work unit calculations.

Management Utilization

Division managers monitor inspection performance measures on a weekly basis. If levels fall below target, remedies are similar to those used for the inspections functions and include review of workload volumes and the need for additional training, and, if necessary, the use of contract plan reviewers on a temporary basis.

Management Initiatives:

Team Approach for Major Project Plan Review

For major projects, Phoenix has initiated a team approach to plan review. Project review teams include representatives from planning, civil engineering, building safety and field inspections, and are supported by a clerical staff member and a Technical Research group. A Project Manager coordinates teamwork and serves as a single point of contact. Managers, drawn from experienced staff, are expected to customize the plan review approach and schedules taking advantage of project characteristics that may allow a more flexible review process while still adhering to city policy. A written agreement including timelines, estimated fees and submittal requirements is made with the developer's team.

Permit by Inspection

This program allows inspectors to issue permits for simple construction work out in the field after an on-site inspection. In exchange for convenience, the builder must bear the risk that already finished work will not meet code standards.

Permit by Appointment

Primarily targeted towards mid-sized commercial projects, the permits by appointment program bring together the building developer's team with a Department team including planning and building safety professionals. To the extent possible, compliance issues are resolved at a single meeting.

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Profiles of Performance Measurement in Selected Jurisdictions – Out of State

City of Portland, Oregon

Population:
510,000

Department:
Bureau of Buildings

Building Inspection Annual Volumes:

49,814 permits issued

18,278 plans reviewed

176,290 inspections performed

Summary of Performance Measurement and Business Practices:

Inspections

The City of Portland utilizes combination inspectors for most inspections performed. Single certification inspectors are used only for certain commercial structures.

	Performance Targets by Inspection Type		
Performance Measure	**Single Certification (Commercial only)**	**Dual Certification (Commercial only – Structural, Mechanical)**	**Combination Certification (Residential only – Plumbing, Electrical, Structural, Mechanical)**
Inspections per Inspector per Day	10-12 Target met	12-14 Target met	14-16 Target met
Percentage Inspection Responses within 24 Hours	95% Target met	95% Target met	95% 90 – 93% range met

Performance Target Development

City of Portland performance targets are based on department historical experience and are generally accepted as fair measures of individual productivity by inspection staff.

Management Utilization

Management reviews performance measures on a monthly basis to determine if targets are being met. Short-term remedies include the use of overtime hours and readjustment of the number of inspections assigned per inspector by geographic district. Should these remedies fail to raise performance to targeted levels after a 3-4 month period, the need for staffing adjustments is examined.

Plan Review

Performance measures for the plan review staff include target review times by plan type for both initial and subsequent reviews.

	Performance Targets by Plan Review Type		
Performance Measure	**New Single Family Residential**	**General Commercial**	**Major Projects**
Working Days for Initial Plan Check	10 Target difficult to meet due to staff turnover	15 Target difficult to meet due to staff turnover	Required time estimated on case-by-case basis after multiple discussion sessions with developer's team Estimated targets met
Working Days for Subsequent Plan Check	5 Target met	5 Target met	14-16 Target met
Percentage Plan Check within 24 Hours (OTC)	60% of total plans reviewed Target met	N/A	N/A

Performance Target Development

City of Portland performance targets are based on department historical experience, but are dated, based on 12 year-old data. However, the City is currently engaged in a major effort to develop more current performance measures.

Management Utilization

Management reviews performance measures on a monthly basis to determine if targets are being met. Short-term remedies include the use of overtime hours. Should these remedies fail to raise performance levels to targeted results after a 3-4 month period, the need for staffing adjustments is examined.

Management Initiatives:

Shortening Permit Approval Time Across Departments

Management initiatives include a current review of the permit approval time per department. This review would seek to determine the average time needed by each department for its review of permit applications, including planning, public works and other city departments as well as the Bureau of Buildings. This initiative will form the basis for a larger organizational change combining planning department and building bureau plan review staffs, and placing the Bureau of Buildings in a project management role with regard to the overall permit approval process. The Bureau is negotiating agreements with each of the relevant departments specifying customer service and other goals. These agreements will eventually be expanded to include approval time targets for each department involved.

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Profiles of Performance Measurement in Selected Jurisdictions – Out of State

City of Seattle, Washington (Inspections Only)

Population:
540,000

Department:
Department of Design, Construction and Land Use
Inspection Services

Building Inspection Annual Volumes:

25,000 permits issued

85,000 inspections performed (25,000 structural; 25,000 plumbing; 35,000 electrical)

Summary of Performance Measurement and Business Practices:

Inspections

Seattle utilizes a single performance measure to gauge inspector responsiveness.

	Performance Targets by Inspection Type			
Performance Measure	**Plumbing**	**Electrical**	**Mechanical**	**Structural**
Percentage Inspection Responses within 24 Hours	95% Target met.	95% Target met.	95% Target met.	95% Target met.

Performance Target Development

Performance targets levels are set based on historical experience.

Management Utilization

Management reviews a two-week sample of paper logs on a quarterly basis to determine the percentage of inspections meeting the 24-hour target. Performance levels below the 95% target are primarily the result of staff turnover and unanticipated leave. New staff recruitment has been complicated by private sector demand for similarly skilled personnel.

While no inspections per inspector per day targets are set, supervisors adjust per inspector workloads on a daily basis with a limited number of inspectors acting as "roamers" covering multiple areas. (Inspection assignments are made based on geographic area.)

Management Initiatives:

Technology and Customer Focus Groups

Management is currently examining different automated permit tracking, inspection assignment and IVR (interactive voice response) systems to improve work performance. In addition, the division is working with internal staff and external customer focus groups to redesign the inspection process to be more responsive to customer demands.

Appendix D

Supplemental Appendix – Comparative Performance

Supplemental Benchmarking Survey – CCSF Comparative Performance Against Select Jurisdictions

Performance Measures	Jurisdiction Responses				
	Indianapolis, Indiana	**Phoenix, Arizona**	**Portland, Oregon**	**CCSF DBI**	**Assessment of DBI Comparative Performance**
Plan Review					
• Percentage of Plans Reviewed and Approved Over the Counter	99% (system differences limit comparability) Commercial Buildings Plans for structures considered commercial in nature must be submitted to the State of Indiana, Division of Fire and Building Services for classification and review. Plans are then released to local authorities for permit issuance. Residential Dwellings General Contractor must first submit construction plans to obtain a structural permit. Once the structural permit is issued, other permits for electrical, plumbing and HVAC, are then issued.	15%	85% - 60% of all building permits - 90% of all trade (plumbing, electrical, mechanical and sign) permits	85%	**High -** compares favorably

	Jurisdiction Responses				
	Indianapolis, Indiana	**Phoenix, Arizona**	**Portland, Oregon**	**CCSF DBI**	**Assessment of DBI Comparative Performance**
Plan Review (continued)					
• Percentage of Residential Plans Reviewed and Approved Within 15 Days	99% Most plans submitted for structural and craft review by 2:00 P.M. are reviewed within the same day. Builders of model homes submit plans for all their houses with all available amenities. Each permit contains a design number and a listing of the applicable amenities. Digital imagery of the plans saves thousand of pages of microfilm.	75%	95% estimate Exact figure currently not available due to computer conversion. Based on informal staff survey, review times range from • 10-15 working days to approval or first revision request for regular residential plan review. • 5 – 10 working days for contracted residential plan review.	85 + % DBI tracks plans reviewed and approved within 7 and 30 days. 85% reviewed and approved within 7 days. 92% reviewed and approved within 30 days.	**Medium -** compares satisfactorily
• Percentage of Commercial Plans Reviewed and Approved Within 30 Days	NA Plan review performed by State, usually with a 10-day turn around time.	80%	NA Exact figure currently not available due to computer conversion. Based on informal staff survey, review times range from 3–9 weeks. (Larger projects are reviewed on pre-agreed schedules. Schedules are consistently met.)	87%	**High -** compares favorably

	Jurisdiction Responses				
	Indianapolis, Indiana	**Phoenix, Arizona**	**Portland, Oregon**	**CCSF DBI**	**Assessment of DBI Comparative Performance**
Permit Processing					
• Number of Permit Processing Staff	14 -7 customer service representatives (non-review type permits) -6 project managers (review type permits) -1 contracted project manager	8	23 -16 permit technicians -6 clerical support staff -1 cashier	20 -13 Central Permit Bureau staff -7 One-Stop Permitting Staff (Does not include unit managers.)	**High -** compares favorably Permit per Staff Basis Indianapolis – 2860 Phoenix – 6227* Portland – 1856 CCSF – 2650 *Note that over-the counter approval rates for Phoenix are sharply lower than rates of other jurisdictions.
• Number of Permits Processed Annually	40,036 7,306 Electrical 11,966 HVAC 4,307 Zoning 3,594 Master 4,553 Plumbing 7,617 Structural 693 Wrecking Master permits may include up to nine permits as a one-permit issuance, and require repetitive homebuilders to pay ALL permit fees in advance. An additional 20,585 non-structural permits are also issued.	49,814	42,700 7800 Building 8400 Mechanical 15,500 Electrical 11,000 Plumbing	53,000 26,000 Building 13,500 Electrical 13,000 Plumbing	**NA**

	Jurisdiction Responses				
	Indianapolis, Indiana	**Phoenix, Arizona**	**Portland, Oregon**	**CCSF DBI**	**Assessment of DBI Comparative Performance**
Inspections (Inspections by Request)					
▪ Percentage of Inspection Requests Responded to Within 24 Hours	99% Department goal is to perform all inspections within 24 hours. In most cases, an inspection is scheduled and completed the same day if the inspection request is received by 7 AM.	95%	98% commercial 95% residential	80%	**Low -** compares unfavorably
Code Enforcement					
• Percentage of Code Violations Resolved Without Court Proceedings	99%	99% Very few violations go to court – most are resolved through inspection notices.	99% Only in court if property owner seeks a writ of review of administrative hearing decision.	99%	**High -** compares favorably

Best Practices	**Jurisdiction Responses**				
	Indianapolis, Indiana	**Phoenix, Arizona**	**Portland, Oregon**	**CCSF DBI**	**Assessment of DBI Comparative Performance**
Plan Review					
• Does your jurisdiction offer an express plan review service? Briefly describe. (For an additional fee, members of the developer's team meet by appointment with a team of plan review professionals from all City departments to make revisions necessary for code compliance. The meeting continues until all issues are resolved, or revisions arise which cannot be completed within the meeting format.)	NA The State does offer a "quick" review limited to the building foundation, and issues an additional, separate permit for the remaining structure.	Yes Expedited plan reviews are offered through the Department's "permits by appointment" and "plan review by inspection" programs.	None except overtime. Overtime plan review Special requests for review on overtime basis are made and accommodated if a reviewer is available. Facilities Permit Program This program allows participating facilities to purchase annual building-specific permits for which inspectors perform both plan review and inspections on site. Records of all Tenant Improvements are kept at the facility and inspectors log their reviews at the site. Records are transferred to City Documents Service Center on a periodic basis.	Yes, in part. Pre-application review meetings provide code interpretations and resolve major code issues prior to the submission of plans. . Overtime plan review is available by request but in practice is of limited use during the first 4-6 months of the fiscal year due to City restrictions.	**Medium -** compares satisfactorily

	Jurisdiction Responses				
	Indianapolis, Indiana	**Phoenix, Arizona**	**Portland, Oregon**	**CCSF DBI**	**Assessment of DBI Comparative Performance**
Plan Review (continued)					
• Does your jurisdiction track its responsiveness to technical code interpretation inquiries? Briefly describe.	Yes informally Calls for technical assistance received by 1 p.m. should be answered the same day. Calls received after 1 p.m. should be answered by noon the following day. There is no formal tracking of this process.	Yes informally Department policy is to return all calls within 4 hours of receipt. A code information line staffed by a permit specialist is available during business hours to answer general code questions. Questions of greater technical complexity are referred to plan review staff members. No formal tracking exists but complaints are monitored.	No No formal tracking exists of calls for technical assistance. Code Alternatives However, the department does track all "alternate materials and construction" proposals for specific projects. When a consistent pattern of alternate approaches to satisfy code requirements becomes apparent, an attempt is made to develop a standing procedure for their approval.	No A code information line staffed by permit specialist is available during business hours to answer general code questions. Questions of greater technical complexity are referred to plan review staff members. No formal tracking exists but complaints are monitored.	**Medium -** compares satisfactorily

	Jurisdiction Responses				
	Indianapolis, Indiana	**Phoenix, Arizona**	**Portland, Oregon**	**CCSF DBI**	**Assessment of DBI Comparative Performance**
Permit Processing					
• Does your jurisdiction offer an express permitting window? Briefly describe. (An express permitting window provides separate access to permit services for applications involving simple construction that can be issued on the spot.)	Yes A separate area is maintained for representatives of repetitive homebuilders to enter data for a permit while awaiting review. This program has been very successful. Additionally, permit applications are accepted via the Internet, telephone, and fax.	No All applications are screened at the counter, with permits for minor work meeting OTC guidelines issued 'over-the-counter'.	No All applications are screened at the counter, with permits for minor work meeting OTC guidelines issued 'over-the-counter'.	Yes A separate express window is maintained for applications involving tenant improvements and other minor construction permits.	**High -** compares favorably
• Does your jurisdiction offer a single point of contact for permit applications requiring review by multiple departments? Briefly describe.	Yes A 'one-stop' window accepts applications for the following permits: -Building (structural) -Electric -HVAC -Plumbing - Zoning, right-of –way -Sewer connection, flood review -Wrecking, removal -Historical and specialty designated areas	Yes Through its team approach, Phoenix offers a single point of contact bringing together multiple discipline, including site, civil and building safety review. A single application submission window is planned.	Yes A new, single point of contact service is being implemented as part of a current process improvement program.	Yes The Department's one -stop permitting program accepts all permit applications requiring review by 3 or more City departments.	**High -** compares favorably

	Jurisdiction Responses				
	Indianapolis, Indiana	**Phoenix, Arizona**	**Portland, Oregon**	**CCSF DBI**	**Assessment of DBI Comparative Performance**
Inspections (Inspections by Request)					
- Does your jurisdiction receive inspection requests on a 24-hour basis? Briefly describe.	Yes An IVR system fields all normal inspection requests. This system also informs the contractor if a job has passed or failed a previous inspection.	No, 14 hour availability. An IVR system accepts requests from 6 a.m. to 8 p.m. Expansion to 24 hour availability is planned.	Yes 24-hour IVR system in use.	No Hours of availability for inspection requests vary depending on inspection type. Different inspection units (building, electrical, and plumbing) offer differing levels of voice mail and live clerk access at different time periods during the day.	**Low** – compares unfavorably
- Does your jurisdiction have an automated system for scheduling inspection appointments, e.g. IVR? Briefly describe.	Yes The IVR system accepts phone key input for morning or afternoon inspection requests. Additionally, the department offers: - a $40.00 accelerated inspection used extensively by contractors - a $60.00 after hour inspections by appointment used primarily by restaurants	Yes IVR takes phone key input requests. If a specific time is desired, callers leave a contact phone number and receive a return call from an inspector.	No However, a new IVR system is being introduced in March 2000 as part of new permit-processing software package.	No Voice mail or personal contact is necessary to confirm inspection requests.	**Low** – compares unfavorably

	Jurisdiction Responses				
	Indianapolis, Indiana	**Phoenix, Arizona**	**Portland, Oregon**	**CCSF DBI**	**Assessment of DBI Comparative Performance**
Code Enforcement					
• Once a code violation has been identified, what steps does your jurisdiction take to enforce compliance before pursuing court proceedings? Briefly describe.	Issue a Notice of Violation (A copy is left on site and a courtesy copy is mailed the following day to the contractor's licensing address.) The contractor has 15 days to correct and request a re-inspection or challenge the validity of the violation notice. Occasionally, an extension of time is requested (due to a shortage of materials) and a reasonable extension is granted.	Issue an inspector's notice. Post letter to violating contractor. Issue a Notice of Violation. Issue a civil citation.	Issue a notice of violation Case is referred to the department's Code Compliance section. This section issues a second notification to the owner or files a citation immediately with the Code Hearings Officer A hearing is held – The Code Hearings Officer may allow more time, dismiss the case, order compliance or impose civil penalties. The property owner may dispute the hearing verdict in court.	Notice of violation issued Second notice of violation issued. Case is referred to a Director's Hearing A hearing is held and the case is dismissed, an abatement order issued or more time allowed. (45% of Director's Hearing cases result in orders of abatement.) Refer to the Abatement Appeals Board. Refer to Commission for review. Refer to City Attorney for legal proceedings.	**Medium -** compares satisfactorily

Supplemental Demographic Information

	Jurisdiction Responses			
	Indianapolis, Indiana	**Phoenix, Arizona**	**Portland, Oregon**	**CCSF DBI**
Operations Factor				
▪ Average square miles per inspector district	Indianapolis: 40 square miles	Residential -- 18.5 sq. miles Commercial – 45.5 sq. miles	Commercial, Structural, Mechanical – 13.6 sq miles Plumbing – 25 sq miles Electrical – 16.6 sq miles	Inspector districts determined by census tract and workload only.
• Average number of inspections performed per single site visit	4 inspections per site visit of new buildings Numerous single inspections per site visit for specialized permits. These lower the overall average to approximately 2 inspections per stop.	Commercial – 1.2 inspections per site visit Residential -- NA	Commercial Building/HVAC – 1.6 inspections per site visit Commercial Electrical – 1.7 inspections per site visit Commercial Plumbing – 1.9 inspections per site visit Residential – 1.6 inspections per site visit	One inspection is performed per inspector/site visit.

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